Sartorius Group

2021 Annual Report

Simplifying Progress

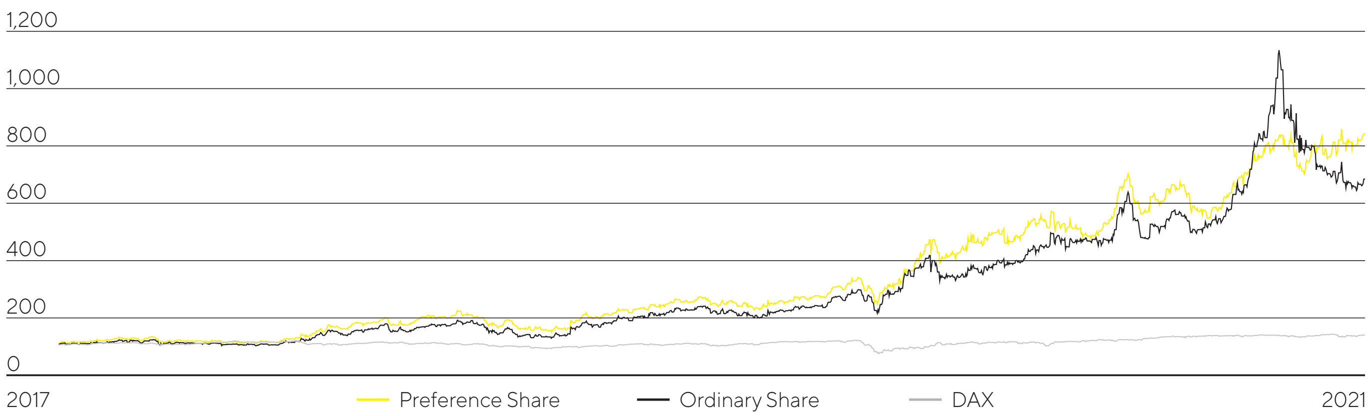
SARTORIUS

Key Figures

All figures are given in millions of € according to the IFRS, unless otherwise specified	**2021**	Δ in %	2020[5]	2019	2018	2017
Order intake, sales revenue and earnings						
Order intake	4,267.9	50.5	2,836.3	1,939.5	1,662.5	1,501.4
Sales revenue	3,449.2	47.7	2,335.7	1,827.0	1,566.0	1,404.6
Underlying EBITDA[1]	1,175.0	69.7	692.2	495.8	405.0	353.2
Underlying EBITDA[1] as a % of sales revenue	34.1	4.5pp	29.6	27.1	25.9	25,.
Relevant net profit[2]	553.4	84.9	299.3	209.4	175.6	144.0
Earnings per ordinary share[2] (in €)	8.08	85.0	4.37	3.06	2.56	2.10
Earnings per preference share[2] (in €)	8.09	84.8	4.38	3.07	2.57	2.11
Dividend per ordinary share (in €)	1.25[3]	78.6	0.70	0.35	0.61	0.50
Dividend per preference share (in €)	1.26[3]	77.5	0.71	0.36	0.62	0.51
Net worth and financial position						
Cash flow from operating activities	865.8	69.3	511.5	377.2	244.5	206.5
Capital expenditures as a % of sales	11.8	1.5pp	10.3	12.3	15.2	14.9
Net debt	1,732.7	-8.0	1,883.9	1,014.0	959.5	895.5
Ratio of net debt to underlying EBITDA[4]	1.5	–	2.6	2.0	2.4	2.5
Equity ratio (in %)	30.2	-0.6pp	30.8	38.1	38.5	35.1
Total number of employees as of December 31	13,832	30.0	10,637	9,036	8,125	7,501
Bioprocess Solutions Division						
Order intake	3,483.5	55.6	2,238.1	1,457.6	1,233.7	1,091.3
Sales revenue	2,727.0	53.0	1,782.6	1,350.5	1,143.1	1,010.3
Underlying EBITDA[1]	986.3	71.3	575.9	393.1	326.9	282.4
Underlying EBITDA[1] as a % of sales revenue	36.2	3.9pp	32.3	29.1	28.6	28.0
Lab Products & Services Division						
Order intake	784.4	31.1	598.2	481.9	428.8	410.1
Sales revenue	722.2	30.6	553.0	476.5	423.0	394.2
Underlying EBITDA[1]	188.8	62.3	116.3	102.7	78.1	70.8
Underlying EBITDA[1] as a % of sales revenue	26.1	5.1pp	21.0	21.6	18.5	18.0

1 Underlying = excluding extraordinary items
2 After non-controlling interest, adjusted for extraordinary items and non-cash amortization, as well as based on a normalized financial result and a normalized tax rate
3 Amounts suggested by the Supervisory Board and the Executive Board of Sartorius AG
4 EBITDA includes underlying pro forma EBITDA contributed by acquisitions for this period
5 The figures for the reporting period 2020 were restated due to the finalization of the purchase price allocation for the acquisitions of BIA Separations and WaterSep BioSeparations

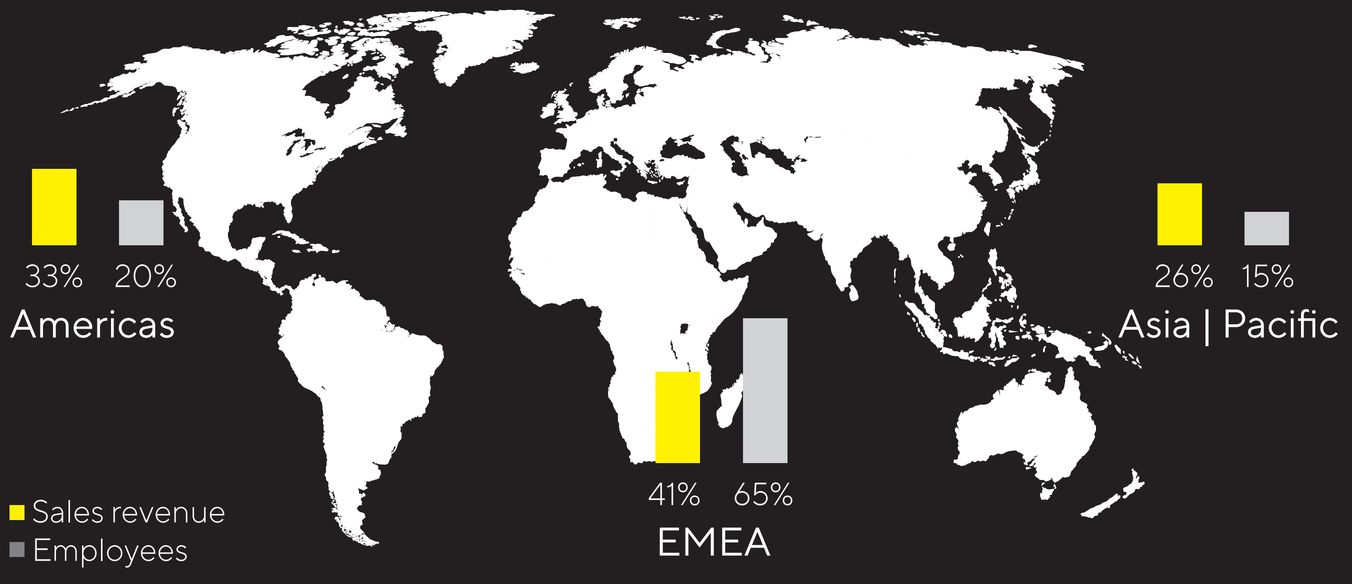
Sartorius Shares in Comparison to the DAX (indexed)



1870	Founded by Florenz Sartorius, headquartered in Göttingen, Germany
60+	Production and sales sites worldwide
>13,800	Employees
~18%	Sales CAGR 2011-2021
+14.4pp	Change in underlying EBITDA margin 2011-2021
~€37.4bn	Sartorius AG market capitalization; listed on the DAX and TecDAX

Sales growth for continued operations, at constant exchange rates; underlying = excluding extraordinary items

Strong Presence in All Major Biopharma Markets



Innovative Solutions for Better Medications

With its pioneering spirit and a profound understanding of customer requirements, Sartorius has evolved throughout its 150-year history into a key partner for biopharmaceutical research and the industry. Our goal is to make complex and expensive development of biotech medicines and their production safer and more efficient. We cover the entire value-added chain of the biopharmaceutical industry and help with our products and services to ensure that novel therapies and vaccines reach the market faster and are accessible to more people worldwide.

See page 27, Sartorius Group at a Glance

Mission

We empower scientists and engineers to simplify and accelerate progress in life science and bioprocessing, enabling the development of new and better therapies and more affordable medicine.

Vision

We are a magnet and dynamic platform for pioneers and leading experts in our field. We bring creative minds together for a common goal: technological breakthroughs that lead to better health for more people.

Bioprocess Solutions

In the Bioprocess Solutions Division, Sartorius offers a broad product portfolio that covers all steps in the production of a biopharmaceutical. The company has held leading market positions for years in its core technologies, such as filtration, fermentation, cell cultivation and fluid management.

We Operate in Two Divisions With a Clear Focus on the Life Science Industry

Lab Products & Services

The Lab Products & Services Division offers laboratories in the pharmaceutical and biopharmaceutical industries as well as at academic research institutes innovative solutions for bioanalytics, in addition to premium laboratory products, consumables and services. Sartorius is among the market leaders in laboratory balances, pipettes and lab consumables.

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To Our Shareholders

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Report of the Executive Board

Dear Shareholders and Business Partners,

The progress and achievements in life sciences and the biopharmaceutical industry have probably never been more apparent to everyone than they have been over the past two years. Rapid development and production of reliable tests and highly effective vaccines against coronavirus are an impressive demonstration of the high impact that the innovative power of this industry has on people's health worldwide.

Key therapies, such as the treatment of various types of cancer, have been based on biotechnological manufacturing processes for quite some time now. While monoclonal antibodies have been playing the most significant role for some years, promising progress has recently been made in the development of new modalities. In this context, I would like to particularly highlight cell and gene therapeutic methods as well as mRNA-based approaches and other innovative technologies. Thanks to such new opportunities, we can expect further breakthroughs in the treatment of diseases that so far have been difficult to cure or even incurable, giving hope to millions of patients.

Sartorius is focused on providing its customers in the biopharmaceutical industry as well as at biotech startups and in science the tools and technologies to achieve such breakthroughs, enabling researchers, developers, and engineers to reach their goals faster and at lower costs. The pandemic has made the relevance of our portfolio in this regard very evident.

In fiscal 2021, we contributed to making the production of newly developed coronavirus vaccines and test kits at an unparalleled speed and in unprecedented quantities a reality. Still, pandemic-related business was a relevant, but not a dominant factor in the past year as our core business generated even higher contributions to growth. Sales revenue rose by around 49% to around €3.45 billion, and we also achieved a further increase in profitability with an operating EBITDA margin of 34.1%. This development was driven by strong growth in both divisions, new record highs in basically all product segments, and in all geographies.

Managing this strong growth was only possible due to the significant increase in headcount and our very extensive investment program to expand production capacities. I am happy that the Sartorius team has increased by around 3,200 people and closed 2021 with almost 14,000 employees. Investments totaled around €400 million and were used to expand our capacities in several product segments and in all business regions.

Over the past months, we also closed a series of strategic acquisitions. With the takeover of Xell and the acquisition of a majority stake in CellGenix, we further expanded our product portfolio that is especially important for manufacturing cell and gene therapeutics as well as vaccines. In early 2022, we acquired a majority stake in Automated Lab Solutions and thus extended our bioanalytics portfolio, and completed the acquisition of the Novasep chromatography division that had already been agreed upon at the beginning of 2021.

A brief word on our stock market performance: In September, Sartorius preference shares were admitted to the leading German index, DAX, which was expanded to 40 companies. This move to the blue-chip index was based on Sartorius' business performance over the past years and its attractive further growth prospects.

In addition, the above-average valuation factors in the biotech and life science sectors had an amplifying effect. Sartorius preference shares closed 2021 with a gain of around 73%, and the company's ordinary shares rose by around 45%.

During the past years, we have already implemented various measures to reduce our ecological footprint. Now we have set an ambitious target to continuously reduce our CO_2 emission intensity by around 10% annually. By 2030, this is projected to lower our emission intensity by almost 70%. Over time, we will spend around 1% of Group sales revenue per year to reach this ambitious goal.

Let's now take a look at the future: The long-term trends and main drivers of our business remain strong, and the global biopharma sector is currently in a highly dynamic and innovative phase. At the same time, the pandemic is not over yet, and even short-term forecasts are subject to relatively high uncertainty. In this environment, we project that consolidated sales revenue will increase by about 15% to 19% this year and – following the jump in profitability in 2021 – expect our underlying EBITDA margin to reach about 34%. We are continuing to move ahead at full speed in investing in additional capacities and are planning with a CAPEX ratio of around 14%.

Regarding our mid-term targets, we are now aiming to achieve an underlying EBITDA margin of around 34% in 2025, a level around two percentage points higher than predicted before. Our sales revenue target continues to be projected at around €5 billion, and we plan to achieve it primarily through organic growth and additionally by acquisitions. These targets do not include any pandemic-related business as it is currently not possible to make a robust estimate of this.

We can reach these ambitious goals only as a team. In the past year, our employees went all the extra miles so that we could supply our customers reliably with urgently needed products. Our special thanks therefore go out to the entire international Sartorius team for their extraordinary performance yet again.

I would also like to sincerely thank you, our valued customers, business partners, and shareholders. Based on the trust you have placed in us – often throughout many years – you have contributed significantly to the positive development of Sartorius. We would be pleased if you would continue to accompany us in 2022 and beyond and share in the further success of our company.

Sincerely,

Dr. Joachim Kreuzburg
CEO and Executive Board Chairman

Executive Board

The Group's central management entity is the Executive Board of Sartorius AG. It defines the strategy, is responsible for the operational management of the Group and controls the distribution of resources within the organization.

Joachim Kreuzburg
CEO

Group Strategy, Human Resources, Corporate Research, Legal & Compliance, Communications

Board member since 2003

Rainer Lehmann
Member of the Board

Finance, Information Technology, Business Processes

Board member since 2017

René Fáber
Member of the Board

Head of Bioprocess Solutions

Board member since 2019

Gerry Mackay
Member of the Board

Head of Lab Products & Services

Board member since 2019

Report of the Supervisory Board

Dear Shareholders and Business Partners,

The second year of the pandemic is behind us, a year that was both challenging and successful for Sartorius. In addition to managing extraordinarily high growth, the company worked on the further strategic development of its portfolio by making three acquisitions and, moreover, set ambitious targets to reduce Sartorius' CO_2 emission intensity significantly in the coming years.

In 2021, the Supervisory Board intensively dealt with the situation and prospects of the company. We advised the Executive Board on corporate management and performed the tasks assigned by German corporate law and the company's Articles of Association. The Executive Board informed us regularly by providing prompt and comprehensive reports, both written and verbal, about all relevant corporate planning and strategic development issues, the progress of business in the divisions, the situation of the Group, including its risk situation, risk management and internal control systems, as well as about compliance. In view of the continuing pandemic, the Executive Board also kept us informed on the health situation within the company as well as about the measures to maintain secure supply chains and production. The company's significant transactions were discussed in depth by the respective committees responsible as well as by the full Supervisory Board, on the basis of the reports provided by the Executive Board. Following thorough review of the Executive Board's reports and proposed resolutions, we voted on these to the extent that our vote was required.

Our cooperation with the Executive Board was always characterized by openness, constructive dialogue, and trust.

Focus of the Supervisory Board's Conferences

In the reporting year, the Supervisory Board convened slightly more frequently than on average at eight meetings, which was due to the increased need for information and consultation in connection with the pandemic and with various acquisitions. As far as the pandemic allowed, we held in-presence meetings, as well as some virtual meetings, particularly in the first half of the year, and generally conferred in full session. A list of the participants by name at the meetings of the Supervisory Board and of its committees is provided on the company's website. The Executive Board participated in the majority of our conferences unless only the latter board's or internal Supervisory Board matters were concerned or selected special topics were involved. Regarding such agenda items, we met without the Executive Board at our meetings.

At our meeting on February 11, 2021, we comprehensively discussed the annual and consolidated financial statements for fiscal 2020 and endorsed them based on the reports given by the Audit Committee and the independent auditors who were present during this item of the agenda. After the independent auditors' report and deliberations held, we also endorsed the Non-Financial Group Statement for the reporting year.

Beyond this, we conferred upon and approved the agenda, along with the proposed resolutions, for the 2021 Annual General Shareholders' Meeting, including the proposal for appropriation of the annual profit, as well as the remuneration policy for the Executive Board members. In view of the pandemic, we decided together with the Executive Board to hold the Annual General Shareholders' Meeting virtually again and conferred in detail how the rights of shareholders, in particular the right to ask questions, could be considered in the best possible way. Corresponding principles were adopted. Furthermore, we determined the remuneration of the Executive Board for 2021 and extended the appointments of Executive Board members Dr. René Fáber up to December 31, 2026, as well as of Gerry Mackay up to December 31, 2023.

At our meeting on March 26, 2021, the Executive Board gave us an overview on implementation of the investment program and reported on IT security in the company. In addition, we obtained an overview on various financing topics and, in this context, approved the conclusion of a new loan contract. Furthermore, after a thorough discussion, we consented to the acquisition of the company CellGenix, which had already been presented at the December meeting of the prior year.

As part of our meeting held on June 14, 2021, and also attended by a number of senior managers from the Business Development, Research and Sales units, we thoroughly dealt with topics on corporate strategy and potential portfolio additions in both divisions.

At a further Supervisory Board meeting on July 1, 2021, the Supervisory Board resolved, after renewed consideration, to acquire the cell culture media specialist Xell. In addition, the Head of Group Research reported on various company projects in the areas of automation and artificial intelligence. A further agenda item discussed was about the potential and positioning of Sartorius on the Chinese market. Moreover, the Executive Board held a presentation on a number of digitalization projects.

At the Supervisory Board meeting on September 8, 2021, we dealt with the results of the efficiency review of our work, which had been performed in that year with the help of an external service provider. In a further item on the agenda, the Executive Board reported on various sustainability initiatives and the considerations to introduce the reduction of the company's CO_2 emission intensity as a further non-financial key performance indicator as of 2022. In continuation, we deliberated on the subjects of risk management and the resilience of the company regarding any unforeseen external events. Lastly, the Executive Board informed us about the further development of the system for manager and leadership training, talent management, and on succession planning.

At the focus of the Supervisory Board meetings on October 29, 2021, and November 11, 2021, were reports on the status of various acquisition projects.

Following up on these sessions, we decided at our meeting on December 9, 2021, to acquire Automated Lab Solutions offering an excellent complementary fit with the bioanalytics portfolio of our Lab Products & Services Division, based on the transaction structure presented by the Executive Board. In addition, we approved the budget for 2022 and dealt with the preparations of the company to comply with the German Act on Corporate Due Diligence in Supply Chains, which will enter into force at the beginning of 2023. A further topic was about the various changes to the Executive Board remuneration policy in connection with the introduction of non-financial targets to this board's remuneration. Furthermore, the targets for 2022 remuneration of the Executive Board were approved. At the end of the meeting, a joint training session for all members of the Supervisory Board was held on various law amendments, such as the German Act on Corporate Due Diligence in Supply Chains, the German Financial Market Integrity Strengthening Act, the Second Leadership Positions Act (FüPoG II) to ensure equal participation of women, and the EU Taxonomy Regulation on ecologically sustainable activities.

Activity Report of the Committees

Four committees support the work of the Supervisory Board. These prepare topics that are then dealt with by the full Supervisory Board and, in individual cases, take decisions instead of the full board, as far as permitted. The committee chairpersons reported regularly to the Supervisory Board on the details of their committee work.

The Executive Task Committee met four times during the reporting year. Its discussions primarily focused on the company's various strategic actions as well as on Executive Board matters, particularly on preparation of resolutions on Executive Board remuneration. In addition, the committee dealt with the system on promotion of managers, succession planning for selected functions, as well as the topics of risk management and compliance. In addition, the committee conferred on the implementation of various regulatory changes to prepare for the discussions and the resolutions to be taken by the full Supervisory Board.

In the year under review, the Audit Committee held four meetings. The committee prepared for the full Supervisory Board's conference on endorsement and approval of the consolidated annual financial statements for fiscal 2020 and discussed the quarterly results and the first-half financial report of 2021. Additional focal points were monitoring the effectiveness of the Group-wide risk management and internal control system. The committee also conferred on the subjects of Group financing, IT security, and the company's insurance coverage.

Beyond these items, the committee reviewed the Internal Auditing Department report, which did not indicate any material discrepancies in business transactions, and also considered the department's plans for the upcoming months. With respect to the audit of the annual financial statements for fiscal 2021, the committee confirmed the independence of the auditors and deliberated in detail on selecting auditors to recommend at the Annual Shareholder's Meeting for appointment and commissioning to perform an audit review, as well as on defining and monitoring the audit procedure and the focal points of the audit.

The Nomination Committee that draws up election proposals to be submitted to the Annual General Shareholders' Meeting for shareholder representatives on the Supervisory Board met five times in the reporting year to prepare the corresponding proposals for the Annual General Shareholders' Meeting in March 2022. The Conciliation Committee pursuant to Section 27, Subsection 3, of the German Codetermination Law ("MitBestG") did not have to be convened.

Training and Further Education Measures

As a matter of principle, the members of the Supervisory Board proactively undertake the training and further education measures required for their duties. On December 9, 2021, a joint training session was held for all members of the Supervisory Board on various regulatory subjects.

Audit of the Annual and Consolidated Financial Statements; Review of the Non-Financial Group Statement

The annual and consolidated financial statements prepared by the Executive Board for fiscal 2021 and the management report of Sartorius AG were reviewed by the independent auditing company KPMG AG Wirtschaftsprüfungsgesellschaft based in Hanover, Germany. This company had been commissioned by the Audit Committee of the Supervisory Board pursuant to the resolution passed at the Annual General Shareholders' Meeting on March 26, 2021. The independent auditors issued an unqualified audit certificate.

The auditors attended the Audit Committee meeting on February 8, 2022, and the Supervisory Board Meeting on February 10, 2022, and reported on the essential results of their audits.

Sufficient time was allotted for discussion of all issues with the auditors. Written information and audit reports had been sent to all Supervisory Board members on time and were discussed in detail during the meetings mentioned. On the basis of its own examination of the annual Sartorius AG and consolidated financial statements, the Sartorius AG management report and the Group management report, the Supervisory Board concurred with the results of the audit conducted by KPMG and, at the meeting on February 10, 2022, endorsed the financial statements of Sartorius AG and the Group on recommendation by the Audit Committee. The annual financial statements were thus approved. The Supervisory Board and the Executive Board will submit a proposal at the Annual General Shareholders' Meeting on March 25, 2022, to pay dividends of €1.26 per preference share and €1.25 per ordinary share to shareholders from the retained profit.

Furthermore, the Executive Board submitted a Non-Financial Group Statement based on the German Law to Strengthen Companies' Non-Financial Reporting to implement the EU CSR Directive. The content of this statement was submitted to a voluntary review by KPMG AG Wirtschaftsprüfungsgesellschaft based on a limited assurance engagement. On the basis of this review, KPMG issued an unqualified opinion. The auditing company attended the Supervisory Board meeting on February 10, 2022, and reported on the results of its audit review. Following intensive discussions and examination, the Non-Financial Group Statement was also endorsed by the Supervisory Board members.

Composition of the Supervisory Board and the Executive Board

In fiscal 2021, there was a change in personnel in the employee representatives on the Supervisory Board. Following his many years of service on this board, Uwe Bretthauer retired on February 28, 2021, after reaching the legal retirement age. We would like to thank Mr. Bretthauer for his highly dedicated and constructive collaboration over many years. The company's local court of registration Amtsgericht Göttingen appointed Hermann-Jens Ritzau, effective March 1, 2021, as a new Supervisory Board member. Regarding the Executive Board, there were no personnel changes in 2021.

We would like to thank the Executive Board and all employees across the globe for their exceptionally intensive and successful work in what has once again been an extraordinary year. In addition, we would like to express our appreciation to our shareholders for the confidence they have shown yet again in Sartorius.

Hamburg, February 2022

For the Supervisory Board

Dr. Lothar Kappich

Chairman

Sartorius Shares

Stock Markets Post Price Gains

International stock markets reported major price rises in the reporting year against a background of strong economic recovery and increasing corporate profits. Various risk factors, such as strained global supply chains, high rates of price increases for raw materials and preliminary products, and a supply shortage in some sectors, only occasionally resulted in setbacks. A possible end to expansionary monetary policy because of higher-than-expected inflation rates likewise hit sentiment on the markets only temporarily. Important benchmark indices reached new all-time highs in 2021. The Dow Jones ended the reporting year at 36,398 points, having gained 18.9%. The MSCI Europe closed around 19.9% higher at 1,935 points. Germany's benchmark index DAX and the technology index TecDAX, which both include Sartorius preference shares, also reached new highs, with the DAX rising by 15.8% to 15,885 points and the TecDAX by 22.0% to 3,920 points.

Sartorius Shares Rise Sharply

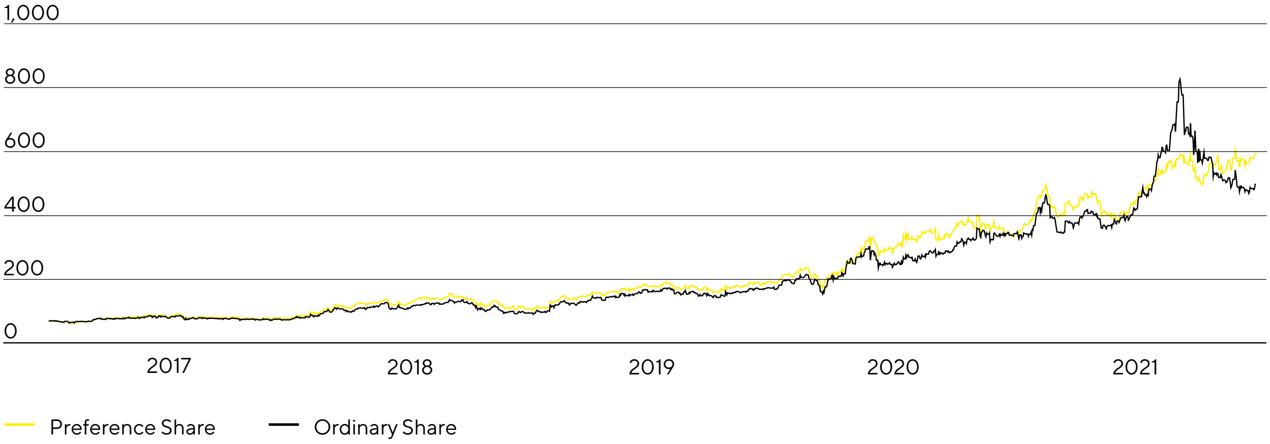
The prices of both classes of Sartorius AG shares were volatile but developed very positively overall during the reporting year. Contributing factors included better-than-expected business performance, several associated forecast adjustments, and the completion of two acquisitions. The news regarding the coronavirus pandemic and the shift from growth to cyclical stocks triggered by rising interest on U.S. government bonds also impacted the performance of Sartorius shares. The company`s preference share closed the 2021 stock-market year at €595.2 – up 73.2% year over year. The ordinary share price rose by 44.6%, closing at €499.0.

In September 2021, Sartorius AG preference shares were admitted to the German DAX share index, which was expanded from 30 to 40 stocks as part of a reform. In addition, these shares remain listed on the TecDAX. Following rule changes by Deutsche Börse during the reporting year, a company's rank within the indices is determined exclusively by its free-float market capitalization. Based on this criterion, Sartorius preference shares are ranked 26th in the DAX and 5th in the TecDAX at year-end.

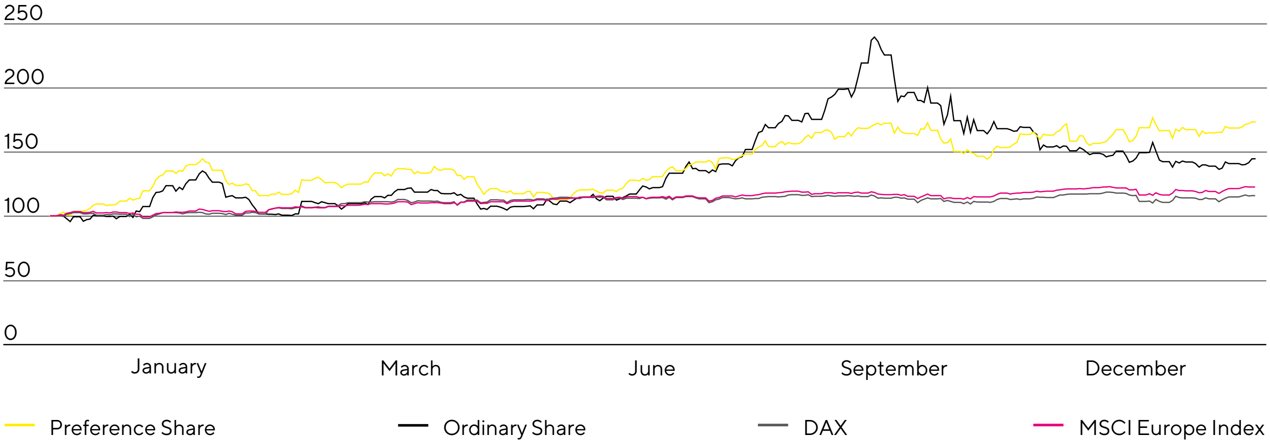
Facts about the Shares

ISIN	DE0007165607 (ordinary shares)
	DE0007165631 (preference shares)
Designated sponsor	Oddo Seydler Bank AG | M.M. Warburg & Co. (AG & Co.) KGaA
Market segment	Prime Standard
Indexes	DAX | TecDAX | MSCI Germany Index | CDAX | Prime All Share-Index | Technology All Share-Index | NISAX20 | STOXX Europe 600 | DAX 50 ESG
Stock exchanges	XETRA | Frankfurt Main | Hanover | Hamburg | Berlin | Munich | Düsseldorf | Stuttgart | Tradegate
Number of shares	74,880,000 no-par individual share certificates with a calculated par value of €1 per share
Of which	37,440,000 ordinary shares
	37,440,000 preference shares
Of which shares outstanding	34,226,009 ordinary shares
	34,189,853 preference shares

Sartorius Shares in €
January 1, 2017 to December 31, 2021



Sartorius Shares in Comparison to DAX and MSCI Europe Index (indexed)
January 1, 2021 to December 31, 2021



Market Capitalization and Trading Volume

The market capitalization of Sartorius AG ordinary and preference shares rose by around 58.9% in the reporting period to €37.4 billion as of December 31, 2021, up from €23.6 billion in 2020.

The average number of preference shares traded daily on the Frankfurt Stock Exchange (Xetra and trading floor) was 65,581 during the period under review compared with 80,572 the previous year. The trading volume was €7.9 billion (2020: €5.9 billion).

Due to the low free float of Sartorius' ordinary shares, they are traded only to a limited extent. Thus, the average number of ordinary shares traded daily was 4,244 compared with 2,774 in the previous year. The corresponding trading volume was around €577.7 million (2020: €179.6 million).

Investor Relations

Sartorius investor relations activities follow the objective of making the current and future development of the company transparent for its stakeholders. To achieve this objective, Sartorius maintains an ongoing, open dialog with shareholders, potential investors and financial analysts.

Besides providing quarterly, first-half and annual reports, we inform the capital market and the interested public at quarterly teleconferences and in regularly published press releases about the current development of our business and other material events at the company. Moreover, Group management and the IR team were available to communicate with capital market participants at mostly virtual conferences and roadshows.

Sartorius was again awarded a prize for its financial market communication by the magazine *Institutional Investor* in the reporting year. Based on a survey of more than 1,500 portfolio managers and analysts, the IR team achieved top rankings.

All information and publications about our company and its shares are available on our website at www.sartorius.com.

Analysts

The assessments and recommendations of financial analysts serve as an important foundation for the decisions of private and institutional investors when acquiring shares. During the reporting year, Sartorius maintained an ongoing dialog with a total of 21 institutes.

Research Coverage

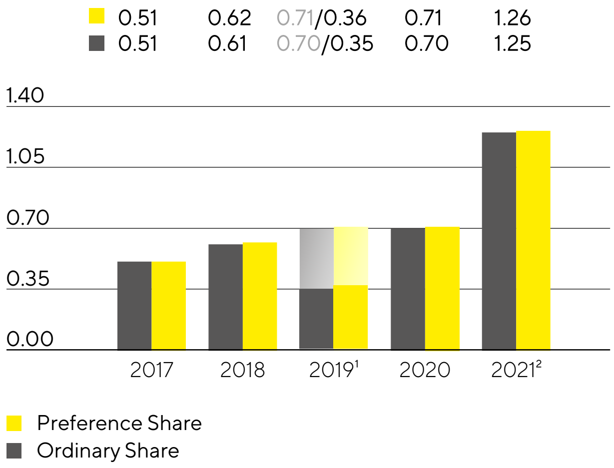
Date	Institute	Price target in €	Recommendation
January 31, 2022	J.P. Morgan	665.00	Buy
January 28, 2022	M.M. Warburg	585.00	Buy
January 28, 2022	Eaxne BNP Paribas	545.00	Hold
January 28, 2022	Société Générale	612.00	Buy
January 28, 2022	LBBW	530.00	Buy
January 28, 2022	Alster Research	510.00	Buy
January 27, 2022	Bank of America Merrill Lynch	643.00	Buy
January 27, 2022	Kepler Cheuvreux	555.00	Buy
January 27, 2022	Stifel	570.00	Buy
January 27, 2022	Metzler	588.00	Buy
January 27, 2022	UBS	340.00	Sell
January 27, 2022	ODDO BHF	614.00	Buy
January 27, 2022	Deutsche Bank	650.00	Buy
January 27, 2022	Morningstar	267.00	--
October 28, 2021	Berenberg	548.00	Hold
October 25, 2021	Nord LB	528.00	Hold
October 22, 2021	EQUI.TS	--	Hold
October 22, 2021	AlphaValue	530.00	--
October 22, 2021	KeyBanc	--	Hold
September 20, 2021	DZ Bank	550.60	Hold
August 3, 2021	Redburn	527.00	Buy

Dividends

The total return generated by Sartorius shares has generally been based almost entirely on the positive development of the share price and only to a very small extent on dividend payments. In line with the rapid and highly innovation-driven development of our industry, the main focus of company’s management is on successfully continuing on our dynamic profitable growth track and on making the extensive investments in capacity expansions, innovations and acquisitions that are constantly required for this purpose. Yet within this context, Sartorius strives to enable its shareholders to participate appropriately in the company’s success through dividends.

The Executive Board and the Supervisory Board will submit a proposal to the Annual Shareholders’ Meeting on March 25, 2022, to pay dividends of €1.26 per preference share and €1.25 per ordinary share for fiscal 2021. If this proposal is approved, the total profit distributed would be €85.9 million, up 78.0% from the year-earlier sum of €48.2 million. The corresponding dividend payout ratio would be 15.5% (prior-year ratio of 16.1%).

Dividends
in €



1 The original dividend proposal of €0.71 per preference share and €0.70 per ordinary share was adjusted in light of the pandemic crisis
2 Amounts suggested by the Supervisory Board and the Executive Board of Sartorius AG

Total Shareholder Return

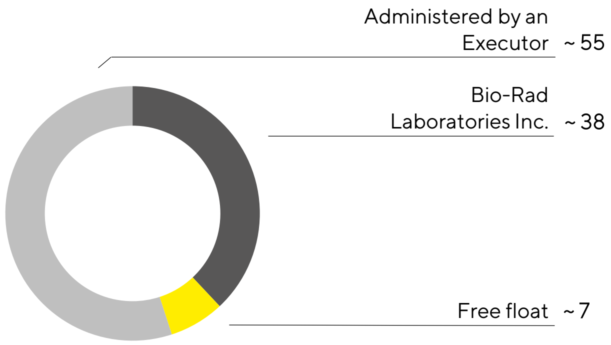
Total shareholder return (TSR) considers both the dividends paid out and any share price increases over a certain period, and thus reflects the entire performance of an investment. In 2021, Sartorius preference shares delivered a TSR of 73.4% (previous year: 80.3%), and its ordinary shares a TSR of 44.8% (previous year: 97.3%).

Shareholder Structure

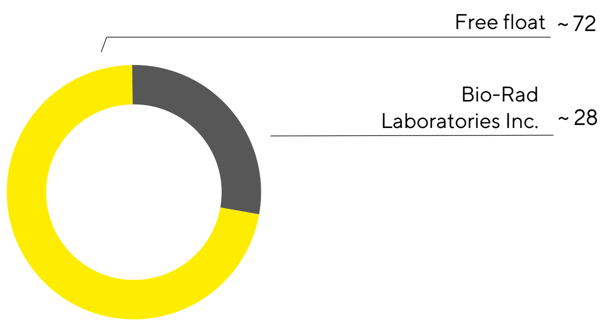
Sartorius AG's issued capital comprises 37,440,000 million ordinary shares and the same number of preference shares, each with a calculated par value of €1 per share. Some of both classes of share are held by the company itself. Minus these treasury shares, the number of ordinary shares outstanding is 34,226,009 and the number of preference shares outstanding is 34,189,853. A good 55% of the ordinary shares outstanding are under the management of an executor. According to the most recent information available, the U.S. company Bio-Rad Laboratories Inc. holds around 38% of the ordinary shares outstanding. To our knowledge, the remaining approximately 7% are in free float.

According to the information currently available, around 28% of the preference shares outstanding are held by Bio-Rad Laboratories Inc.; 72% are in free float.

Shareholder Structure: Ordinary Shares
in %, related to ~34.2 million shares outstanding



Shareholder Structure: Preference Shares
in %, related to ~34.2 million shares outstanding



Information on shareholdings and shares in free float pursuant to Sections 33 et seq. of the German Securities Trading Act (WpHG) and the shareholders' own disclosures. Reporting obligations refer only to ordinary shares and not to non-voting preference shares.

Key Figures for Sartorius Shares

		2021	2020	2019	2018	2017
Ordinary shares[1] in €	Reporting date	499.00	345.00	175.00	96.00	75.42
	High	827.00	362.00	176.00	139.00	89.41
	Low	329.00	156.50	92.60	76.80	73.66
Ordinary share1 in €	Reporting date	595.20	343.60	190.80	108.90	79.54
	High	607.00	404.20	195.00	158.60	93.73
	Low	343.60	174.20	104.00	80.15	64.35
Market capitalization[2] in millions of €		37,428.6	23,555.6	12,507.9	7,006.1	5,298.7
Average daily trading volume of preference shares		65,581	80,572	65,810	107,761	82,434
Average daily trading volume of ordinary shares		4,244	2,774	1,238	2,153	1,605
Trading volume of preference shares in millions of €		7,949.1	5,937.9	2,682.6	3,571.1	1,655.0
Trading volume of ordinary shares in millions of €		577.7	179.6	45.7	61.3	30.0
Total trading volume in millions of €		8,526.8	6,117.6	2,728.3	3,632.4	1,685.0
Dividend per ordinary share[3] in €		1.25	0.70	0.35	0.61	0.50
Dividend per preference share[3] in €		1.26	0.71	0.36	0.62	0.51
Total dividends[3, 4] in millions of €		85.9	48.2	24.3	42.1	34.5
Dividend yield per ordinary share[5] in %		0.3	0.2	0.2	0.6	0.7
Dividend yield per preference share[5] in %		0.2	0.2	0.2	0.6	0.6

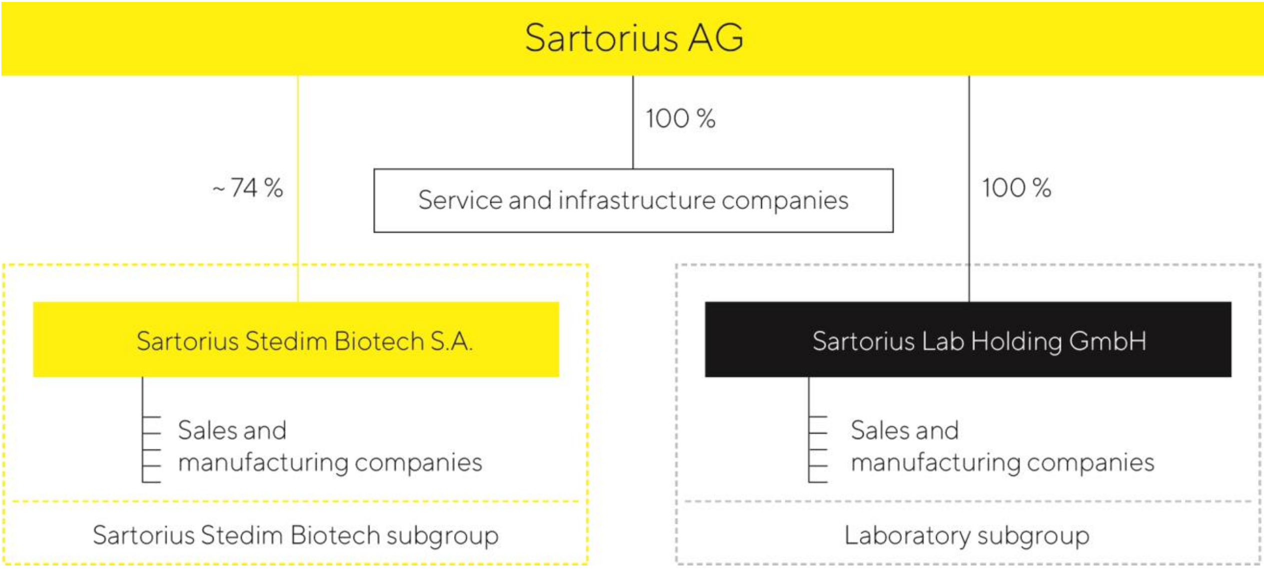
1 Xetra daily closing price
2 Without treasury shares
3 For 2021, amounts suggested by the Supervisory Board and the Executive Board of Sartorius AG
4 Calculated on the basis of the number of shares entitled to dividends
5 In relation to the closing price in the year concerned

Sources: NASDAQ, Deutsche Börse AG

Combined Group Management Report

02

Structure and Management of the Group



Group Legal Structure

Sartorius is a globally operating company with subsidiaries in more than 30 countries. The holding company Sartorius AG is the parent corporation of the Sartorius Group. The corporation is headquartered in Göttingen, Germany, and is listed on the German Stock Exchange.

Sartorius manages its bioprocess business as a legally independent subgroup whose parent corporation is Sartorius Stedim Biotech S.A., which is listed on Euronext Paris. As of December 31, 2021, Sartorius AG held around 74% of the shares of Sartorius Stedim Biotech S.A. The Group's lab business is legally combined in a further subgroup whose parent company is Sartorius Lab Holding GmbH, in which Sartorius AG holds a 100% stake.

The consolidated financial statements include Sartorius AG and all major affiliates in which Sartorius AG has a controlling interest pursuant to IFRS 10.

Organization and Management of the Group

The Group's central management entity is the Executive Board of Sartorius AG. In collaboration with the Supervisory Board, the Executive Board defines the Group's strategy, is responsible for the operational management of the Group and controls the distribution of resources within the organization.

The Sartorius Group conducts its operating business in two divisions: Bioprocess Solutions and Lab Products & Services. The divisions each combine their respective businesses for the same fields of application and user groups, and share part of the infrastructure and central services.

To align our business as closely as possible with our customers' needs, our organizational structure is tailored based on our two divisions. All operational functions such as Sales and Marketing and Production, including production-related functions, as well as Product Development, are organized by division. Administrative functions, support functions and the Corporate Research unit operate across divisions.

Implementing the Group's various strategies and projects at the local level is the responsibility of the national affiliates. The management bodies of the local companies run their organizations in accordance with the applicable statutory provisions, articles of association and rules of procedure and in keeping with the principles of corporate governance that apply throughout the Sartorius Group worldwide.

Changes in the Group Portfolio

In the reporting year, Sartorius expanded its product portfolio for cell culture media and extended its production network in this segment by making two acquisitions. Sartorius, through its subgroup Sartorius Stedim Biotech, acquired a majority stake in CellGenix. The company based in Freiburg, Germany, and with a sales subsidiary near the biotechnology hub in Boston, Massachusetts, USA, produces and markets critically essential cell culture components, such as growth factors, cytokines and media in GMP quality, for manufacturing cell and gene therapy products. The Freiburg site is a center of excellence for developing and manufacturing cell culture components and will be further expanded. With a workforce of around 70 people, CellGenix generated sales of about €20 million in 2020.

In addition, Sartorius through its subgroup Sartorius Stedim Biotech acquired cell culture specialist Xell headquartered in Bielefeld, Germany. Xell develops, produces, and markets media and feed supplements for cell cultures, especially for manufacturing viral vectors that are used in gene therapeutics and vaccines. Beyond these media, the company offers various analytical services for characterizing, screening, and quantifying media components, as well as for optimizing media composition. In 2021, Xell generated sales of approximately €5 million and employed around 35 people.

Furthermore, in February 2022, Sartorius, through its subgroup Sartorius Stedim Biotech, completed the acquisition of the chromatography process equipment division of Novasep with sites in Pompey, northern France, as well as in the USA, China and India. This division of approximately 100 people specializes in resin-based batch and intensified chromatography systems, and its product portfolio is complementary to the existing chromatography offering.

On January 3, 2022, Sartorius acquired a majority stake in ALS Automated Lab Solutions to expand its bioanalytics portfolio. The laboratory technology company based in Jena, Germany, develops, manufactures, and markets solutions for automated analysis, selection, and isolation of cells. With these solutions, ALS enables life science customers to significantly reduce time to result and cost in cell line development and antibody discovery. Sartorius initially purchased 62.5% of the shares in ALS and plans to acquire the remaining 37.5% in 2026. ALS employed around 30 people and generated sales revenue in the high single-digit million-euro range in 2021.

Financial Controlling and Key Performance Indicators

The Sartorius Group is managed using a number of key performance indicators, which are also decisive for the determination of the variable remuneration component for the Executive Board and managers.

A key management parameter that Sartorius uses to measure the development of its size is currency-adjusted growth of sales revenue, i.e., sales in constant currencies. The key profitability measure is EBITDA adjusted for extraordinary items, i.e., underlying EBITDA, and the corresponding margin.

With respect to the Sartorius Group's debt financing capacity, the key indicator is the ratio of net debt to underlying EBITDA for the last twelve months. Furthermore, the CAPEX ratio, i.e., capital expenditures in proportion to sales revenue, represents a key control parameter.

In addition, the following financial and non-financial indicators are reported on a regular basis:

- Order intake
- Relevant net profit | Earnings per share
- Annual net profit | Earnings per share
- Equity ratio
- Net working capital
- Net cash flow from operating activities
- Number of employees

The annual financial forecast that is published at the beginning of a fiscal year for the Group and the divisions refers, as a rule, to the development of sales revenue and of the underlying EBITDA margin. The expected CAPEX ratio, as well as a directional forecast for the ratio of net debt to underlying EBITDA, is additionally indicated for the Group.

Further non-financial indicators are disclosed in the non-financial statement.

Business Model, Strategy and Goals

As a leading partner of life science research and the biopharmaceutical industry, Sartorius helps its customers in the development and manufacture of biotech medications and vaccines – from initial idea in the lab to commercial-scale production.

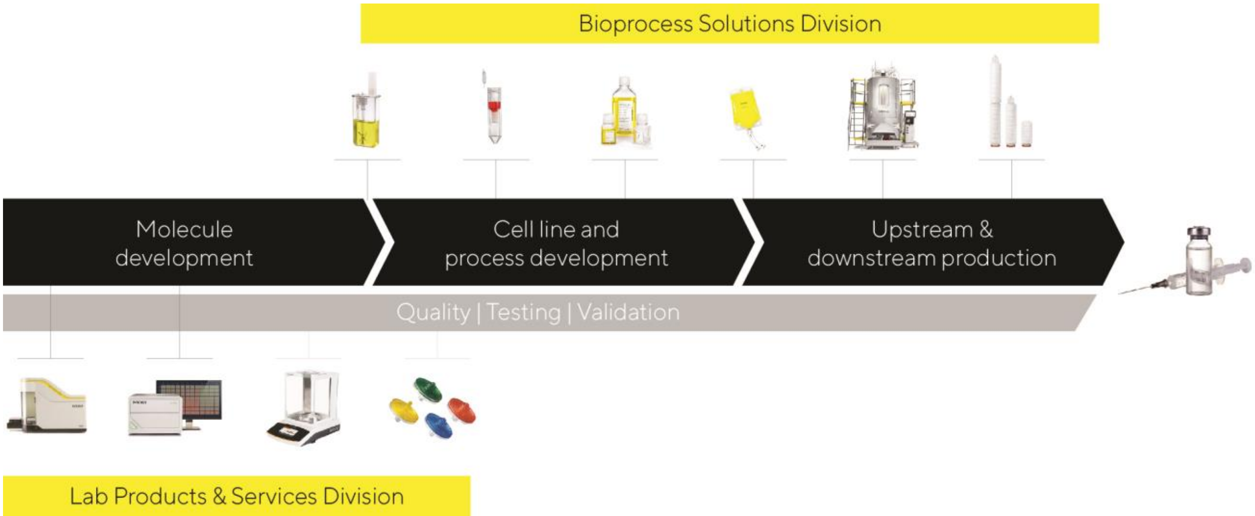
Biopharmaceuticals are integral components of advanced medicine and are used to treat many illnesses, mostly of a serious nature. However, long development times and complex production make these medications very expensive. This leads to high healthcare costs in industrialized countries and to the situation that patients in less developed countries are often excluded from treatment with such drugs. The development of a biopharmaceutical medication is a long haul: It takes more than ten years on average to bring a new drug out on the market, costing more than two billion dollars. On top of this, biotechnological manufacturing processes for such high-tech medications are demanding and must be developed individually for each biologic compound. As a pioneer and technology leader in the biopharma sector, Sartorius with its products and services is enabling its customers to make their research, development and production processes easier and more efficient so that advanced therapeutics can reach the market faster and become accessible for more people worldwide. Therefore, the United Nations' sustainability goal "Good Health and Well Being" is an integral component of Sartorius' business model.

The maturity and intensity of competition in this still comparably young industry are successively increasing. To support customers in meeting this challenge, we are constantly further developing our portfolio. A key competitive advantage is our broad understanding of applications based on our clear focus on the sector. We are thoroughly familiar with the value-added chains of our customers and understand the interaction of the employed systems particularly well. A further important success factor of the company is to offer highly differentiating technologies. Our innovative power rests on three pillars: our own specialized product development, alliances with partners, and the integration of innovations through acquisitions.

With the biopharma industry, Sartorius is focusing on an attractive market, which is characterized by strong growth momentum and long-term trends. Medical progress provides positive impetus, leading to the discovery and approval of new biopharmaceuticals. The biopharmaceutical industry is thus increasingly relying on advanced therapies, such as cell and gene therapeutics and biotech tissue products. Further primary growth drivers are a growing world population and an increase in age-related diseases in industrialized countries. In addition, rising incomes in emerging countries are leading to improved access to healthcare and rising demand for medications. Biosimilars, the generic versions of reference biologics that have lost their patent protection, account for a share of the biopharma market that is currently still small, but especially fast-growing. As a result of these factors, the volumes of biotech medications and the demand for the appropriate production technologies are steadily increasing, with market growth largely independent of business cycles.

In the following, we will outline the positioning and strategy of the company's two divisions: Bioprocess Solutions and Lab Products & Services.

Strategic Focus on Biopharma Applications from Molecule Development to Production of Biopharmaceuticals



Bioprocess Solutions

In the Bioprocess Solutions Division, Sartorius offers a broad portfolio of products that focuses on all major steps in the manufacture of a biopharmaceutical, as well as in process development as prerequisite procedures. Our technologies cover, inter alia, cell line technologies, cell culture media, bioreactors, and a wide range of products for separation, purification, and concentration of biological intermediates and finished products, as well as solutions for their storage and transportation. Sartorius also offers data analytics software for modeling and optimizing processes of biopharmaceutical development and production. In its core technologies, the company has leading market positions with high double-digit market shares.

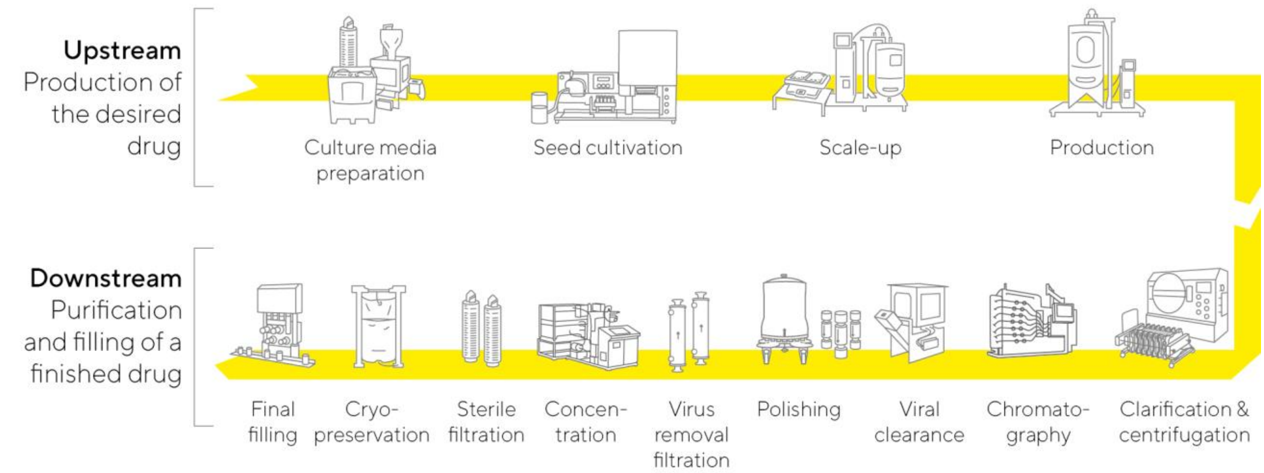
The breadth of our product portfolio, among other things, sets us apart from our competitors. We provide customers with complete process solutions from a single source, as well as assist with preceding project planning, process integration and subsequent validation. Our technologies are used in manufacturing all classes of medical drugs, from vaccines and monoclonal antibodies to advanced viral vector-based gene therapeutics.

Repeat business with sterile single-use products accounts for about three-quarters of the division's sales revenue. These products and technologies offer our customers in research and production cost advantages, flexibility, and less resource usage, and thus a better ecological footprint compared with conventional processes employing reusable stainless steel components. The high share of recurring revenues is also bolstered by the strict regulatory requirements on the part of our customers. Because health authorities validate production processes as an integral part of an application for approval of a new medical drug, the components initially validated can be replaced only at considerable expense once they have been approved. Beyond this, our broad and stable customer base that we address through our specialized sales force directly for the most part also contributes to this favorable risk profile.

The division's strong strategic positioning and the above-average expansion of the sector are a good foundation for profitable growth in the future as well.

Information on the business development of this division is given in the chapter on Business Development of Bioprocess Solutions.

Innovative Technologies for All Phases of Biopharmaceutical Drug Production



Schematic illustration

Lab Products & Services

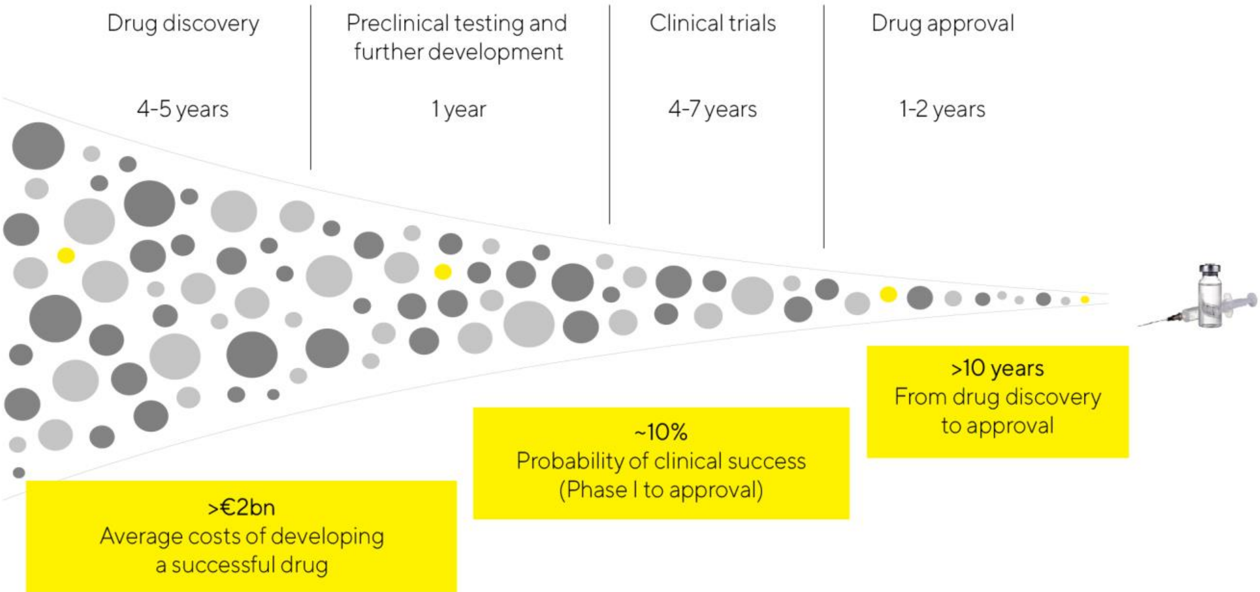
Over the past years, the Lab Products & Services Division has increasingly concentrated on the high-growth biopharmaceutical industry. With its products, the division addresses pharmaceutical and biotech research laboratories as well as academic research institutes. We supply scientists and laboratory staff with the instruments and consumables they need to make their research and quality control easier and faster. For example, we provide our life science customers with innovative systems for bioanalytics to enable them to automate key analytical steps in the development of molecules, cell lines and processes, steps which earlier were mostly carried out manually. In this way, considerably larger quantities of samples can be examined and extensive sets of data generated and evaluated within a short time, substantially accelerating the identification of suitable drug candidates or cell clones. This contributes toward accelerating the protracted timelines of drug development and increases the efficiency of R&D labs in the biopharmaceutical industry.

Beyond this, the division offers a wide range of premium laboratory instruments for sample preparation – such as laboratory balances, pipettes and lab water systems – as well as consumables, such as filters and microbiological test kits. In these product categories, Sartorius has leading market positions and significant market shares. Our solutions are designed to boost the efficiency and productivity of routine yet quality-critical lab processes and industry-specific workflows. Besides serving the needs of the biopharmaceutical industry, this portfolio is also tailored to quality control labs in the chemical and food industries.

With its innovative technology platforms for bioanalytics and its comprehensive portfolio for sample preparation, the Lab Products & Services Division has a strong foundation for further significant organic growth. Due to economies of scale and product mix effects, growth is projected to be accompanied by a continuous increase in profitability.

Information on the business development of this division in 2021 is provided in the chapter on Business Development of Lab Products & Services.

We Focus on Solutions to Improve the Protracted, Expensive and Inefficient Process of Medical Drug Development



Based on the data of the Tufts Center for the Study of Drug Development and the Association of the British Pharmaceutical Industry

Sartorius 2025 Strategy

In 2018, management presented its strategy and long-term targets up to 2025. The consolidated sales revenue target was again significantly raised at the beginning of 2021 and so was the profitability target at the start of 2022. Accordingly, Sartorius plans to increase consolidated sales revenue to about €5 billion by 2025 and to reach an underlying EBITDA margin of around 34% (previously around 32%). The company intends to achieve this sales revenue increase in both divisions primarily through organic growth and additionally by acquisitions. For 2025, company management projects sales revenue of about €3.8 billion with an underlying EBITDA margin of around 36% (previously around 34%) for the Bioprocess Solutions Division; for the same period, sales revenue of around €1.2 billion and an underlying EBITDA margin at about 28% (previously about 25%) are targeted for the Lab Products & Services Division.

The mid-term targets for 2025 still do not include any pandemic-related business as management currently considers such estimates to be too uncertain.

The margin targets already include expenses for measures to reduce the company's CO_2 emission intensity. Sartorius aims to reduce its CO_2 emission intensity by around 10% annually on average until 2030, spending over time around 1% of its sales revenue annually for corresponding measures. Moreover, these projections assume that, on average, the margins of future acquisitions will initially be somewhat below the levels of the Group's existing businesses and, after integration, at levels comparable to these, and that there will be no relevant changes in the key currency exchange rates.

Management points out that the dynamics and volatilities in the life science and biopharma sectors have increased over the past years and the coronavirus pandemic has further amplified these trends so that forecasts currently show even higher uncertainties than usual.

Sartorius 2025 Targets

Bioprocess Solutions	Lab Products & Services	Sartorius Group
~€3.8bn Sales revenue	~€1.2bn Sales revenue	~€5bn Sales revenue
~36% EBITDA margin	~28% EBITDA margin	~34% EBITDA margin

2025 targets are based on 2017 currency rates; EBITDA excluding extraordinary items

These targets are being implemented by various growth initiatives with the following focal points:

Expansion of the Product Portfolio

Sartorius has a broad product portfolio that is continuously expanded in line with the value-added chain of the biopharmaceutical industry. At the focus are products that offer solutions covering the needs of our customers and that make our offering even more attractive from the customers' perspective. Aside from our own research and development activities and strategic partnerships, acquisitions that are complementary to or extend our strengths appropriately will remain part of the portfolio strategy of both divisions. Due to high innovation dynamics, we consider further additions to be possible on an ongoing basis across the entire breadth of our product portfolio. When identifying suitable companies, Sartorius considers the following criteria in particular: Complementarity of technologies to its existing portfolio; strong market positioning, for example, through innovative products with unique selling propositions; integration capability; appropriate valuation; and growth and profitability profile.

Regional Growth Initiatives

Due to exceptionally strong organic growth, Sartorius invested considerably in building up production capacities in the reporting year, and therefore moved already planned expansion projects ahead of schedule as well as accelerated and extended these. In 2021, capital expenditures totaled about €400 million and were used for planning or expanding sites in Germany, Puerto Rico, China and South Korea, among others.

North America and Asia are the key focal areas of our regional growth strategy. The USA is the world's largest market for bioprocess equipment and laboratory products. Yet because it is home to the main competitors for both company divisions, Sartorius formerly had lower market share in this region than in Europe and Asia. Over the past years, we have gained market share in the USA by strengthening our sales and service capacities and see further development potential.

A further strategic focus is on China. This market has sizable growth potential owing to rising private and public healthcare expenditures and the rapid development of regional biopharmaceutical plants. To benefit from the dynamic development of this market, Sartorius has already been investing heavily in expanding its production capacities. This especially applies to South Korea that offers strong growth prospects in this region, given its dynamically growing biopharma market. For that reason, Sartorius planned a new production facility on which construction is scheduled to begin in the current fiscal year.

Optimization of Work Processes

Sufficient production capacity and a powerful supply chain are an essential foundation of future growth. In recent years, Sartorius has substantially expanded its capacities for membranes, filters and aseptic bags at various Group sites in order to shorten delivery times and reliably maintain delivery capability even in the event of local transport restrictions. Beyond this, the company with its multidisciplinary team is working on the further optimization of its network of suppliers and partners to accommodate increasing customer requirements.

Sartorius is driving forward digitalization and automation in many areas to further accelerate and enhance processes and, wherever meaningful, to standardize such processes throughout the Group. This also includes extending the company's activities in the areas of e-commerce, digital marketing, and analytics, as well as on the topics of IT security.

Research and Development

Sartorius conducts research and development in its two divisions as well as in Corporate Research, a functional area that operates Group-wide. A detailed explanation of our R&D focal points is given in the chapters about the divisions on pages 54 and 59.

Corporate Research works in close cooperation with external partners on overarching innovation projects. Its most important task and objective consists of identifying and developing key technologies and application fields of the future. In addition to collaborating closely with customers, research institutes and startups, Corporate Research pursues its own research activities in selected fields. These include, for instance, innovative technologies in live-cell analysis, materials with new functionalities and improved properties, and data analysis. Moreover, in the reporting year, Sartorius established a dedicated unit with Group-wide activities in the field of advanced therapies.

Sartorius entered into a partnership with the Canadian McMaster University to improve manufacturing processes of antibody and virus-based treatments for diseases such as COVID-19, cancers, and genetic disorders. Using Sartorius equipment and technologies, the McMaster team is working on enhancing processes for purification of therapeutic viruses.

In addition, Sartorius and BRAIN Biotech AG are jointly researching and adapting novel CRISPR-Cas genome editing nucleases for specific applications in the field of life sciences. Their target is to increase the performance of Sartorius cell lines to accelerate the development and manufacturing process of future biopharmaceuticals and to make it more cost-effective.

Beyond this, Sartorius has been collaborating since the reporting year with RoosterBio to advance commercial manufacturing of cell and gene therapeutics. The objective of this cooperation is to promote the scale-up of manufacturing of human mesenchymal stem and stromal cells (hMSC) for regenerative medicine.

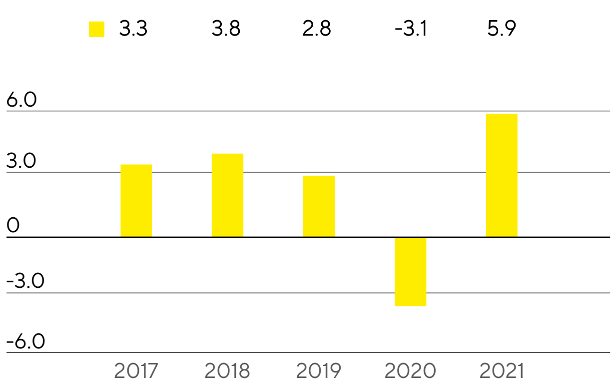
Macroeconomic Environment and Conditions in the Sectors

The sectors in which the Sartorius Group is active differ in their dependence on the economy. The Bioprocess Solutions Division, for instance, operates in an environment that is largely independent of economic fluctuations. The Lab Products & Services Division, in contrast, is partly active in sectors whose development is more strongly affected by economic factors.

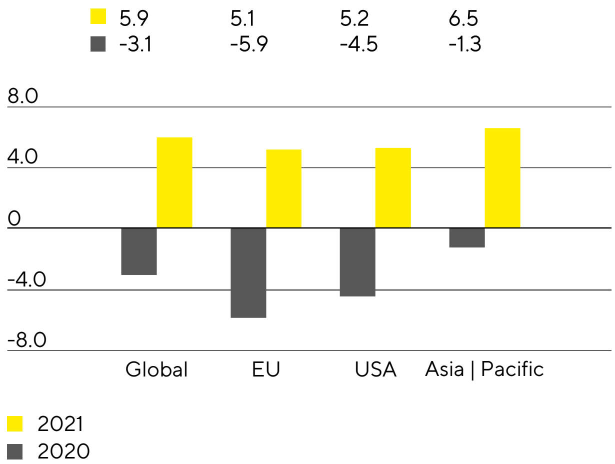
Global Economy on Road to Recovery

In the reporting year, the global economy recovered from the recession caused by the pandemic in 2020. According to estimates by the International Monetary Fund (IMF), global gross domestic product increased by 5.9%. The economy in the industrialized countries grew by 5.2% and growth in the emerging and developing countries was 6.4%. Particularly in the first half of the year, economic activity increased significantly, while rising levels of infections, supply bottlenecks, and restricted transport capacity weakened momentum somewhat during the rest of the year. During the reporting year consumer prices increased markedly in many countries for the first time since the financial crisis of 2008/2009. In addition to the sharp rise in demand compared with the prior year, the IMF attributes inflation to higher commodity prices and a supply shortage partly caused by the pandemic and assesses the effects to be temporary.

Global Development GDP (2017 to 2021)
in %



Gross Domestic Product by Region
in %



Source: International Monetary Fund

Lifting the restrictions associated with combating the pandemic led to a recovery of the economy in Sartorius' European core markets. The service sector in particular benefited from catch-up effects, whereas growth in industry was slowed somewhat due to high costs of raw materials and supply bottlenecks in preliminary products. According to the IMF, the European Union's economic output increased by 5.0% (2020: -6.0%). In Germany, the increase in 2021 was 3.1% (2020: -4.6%), in France GDP rose by 6.3% (2020: -8.0%), and in the UK it rose by 6.8% (2020: -9.8%).

The U.S. economy grew by 6.0% in the reporting year (2020: -3.4%). In addition to a still expansionary monetary policy, extensive government stimulus programs provided positive economic impetus. Falling unemployment figures, stable consumer spending, and high willingness by corporations to invest also had a beneficial effect.

Gross domestic product in the Asia-Pacific economic area increased by 6.5% (2020: -1.3%). The region's growth engine is still China, which was the only major economy to report a positive growth rate in the prior year and grew by 8.0% in 2021 according to IMF estimates (2020: +2.3%). However, momentum slowed noticeably during the year, partly due to the reduction of monetary- and fiscal-policy support measures and to the reintroduction of coronavirus containment measures for periods of time. Other countries in this region that are important for Sartorius also developed positively. South Korean economic output grew by 4.3% (2020: -0.9%), in India the increase was 9.5% (2020: -7.3%) and in Japan, 2.4% (2020: -4.6%).

Exchange Rate and Interest Rate Trends

In addition to the euro, the currencies relevant to the Sartorius Group include the U.S. dollar in particular as well as a number of other currencies, such as the British pound, the Singapore dollar, the South Korean won, the Japanese yen, the Chinese renminbi, and the Swiss franc.

Exchange Rates Against the Euro

	Year-end Exchange Rates		Average Exchange Rate	
	2021	2020	2021	2020
U.S. dollar	1.13245	1.22785	1.18270	1.14196
British pound	0.83902	0.89808	0.85972	0.88951
Singapore dollar	1.52820	1.62260	1.58913	1.57408
South Korean won	1347.6900	1334.0800	1353.74171	1345.63574
Japanese yen	130.36000	126.52000	129.87475	121.80849
Chinese renminbi	7.18870	8.0314	7.62740	7.87300
Swiss franc	1.03336	1.08198	1.08106	1.07042

Interest rates remained at a very low level on average throughout the reporting year. The European Central Bank kept its key interest rate at 0.00%. The 3-month EURIBOR – i.e., the rate of interest on fixed-term deposits denominated in euros in interbank business – stood at -0.57% as of December 31, 2021 (2020: -0.55%).

Sources: International Monetary Fund: World Economic Outlook, October 2021; Bloomberg.

Conditions in the Sectors

Sartorius' key customer groups include the biopharmaceutical and pharmaceutical industries as well as public research institutions. In addition, the company's customers include quality control laboratories in the chemical and food industries. Accordingly, the progress of the Group's business depends on developments in these industries.

Strong Growth in the Biopharmaceutical Market

The global pharma market performed significantly better in the reporting year than in previous years, expanding by around 14% according to EvaluatePharma. This was especially due to strong growth in the biopharmaceutical segment, which rose overproportionately by around 29% to €350 billion in 2021. The reason for this growth was significant additional revenue with coronavirus vaccines and Covid-19 therapeutics estimated at more than €80 billion, which also led to an increase in the biopharma share of the total pharma market from 30% to 34%.

The pharma and biotech industries played a key role in helping to cope with the coronavirus pandemic in the reporting year by developing vaccines and therapeutics. After many vaccine candidates had progressed through the various development stages and initial compounds had been approved at record speed in 2020, more than 40 vaccines and medications have meanwhile received market approval in at least one country. The development activities were accompanied by a considerable expansion of production capacity, with the result that several billion vaccine doses were produced and more than 3.5 billion people were fully vaccinated in 2021. Demand associated with research activities and advancing commercial production led to very positive business performance by suppliers of bioprocess technology, which also benefited from a continuing strong non-pandemic core business. High demand for technologies for the development and production of biopharmaceuticals, coupled with an at times tense situation regarding the availability of some preliminary products, services, and logistics capacity led to longer lead times in some cases. All the leading biopharma suppliers invested heavily in capacity expansion in the face of strong growth and order intake, and these investments are expected to normalize delivery times in the future.

The measures to combat the pandemic also had a dampening effect on certain areas of the pharma and biotech industries in the reporting year. For example, clinical trials had to be interrupted or were unable to be resumed. Around 30% of projects were at an advanced stage of development at the time they were interrupted. This could translate to delayed approval for new medications for indications not related to coronavirus. In 2021, no such effect was discernible, and the number of new approvals of products by the American Food and Drug Administration (FDA) remained at a high level at 30 (2020: 26).

The growth of the biopharma market fundamentally depends more on medium- to long-term trends than on short-term economic developments. In addition to the market launch of innovative biopharmaceuticals, significant impetus was provided by the globally increasing demand for drugs and the extension of the range of indications for already approved medications and their further market penetration. The growing significance and acceptance of biologics is reflected not only in their increasing share of sales revenue of the global pharmaceutical market but also in the development activities of the pharmaceutical industry. For example, biopharmaceutical compounds account for more than 40% of the R&D pipeline. A growing number of active substances manufactured using biotech production methods is being approved for the treatment of rare illnesses that have been incurable so far. The pharma industry is increasingly concentrating on advanced therapies, such as cell and gene therapeutics or biotechnologically processed tissue products. At the end of 2021, there were more than 2,600 clinical trials with such treatment approaches, so this area offers significant growth potential over the mid to long term. The rising number of approved biopharmaceuticals as well as an increasing variety of therapy types and substance classes coupled with growing demand for medications are the main drivers for the worldwide increase in production capacities for biopharmaceuticals.

Biosimilars, the generic versions of reference biologics that have lost their patent protection, are also playing an increasingly important role in the biotechnology market. According to market studies, their sales volume in 2021 was still small at an estimated €13.5 billion, but the market is expected to grow strongly during the years to come owing to the expiration of several patents for high-selling biopharmaceuticals and an increasing number of new approvals of biosimilars and market launches. Particularly in the USA, where development has been comparatively slow due to regulatory, patent-law-related, and marketing hurdles, market penetration is expected to accelerate significantly in the next few years. The market volume could more than triple in this country by 2025. A compound annual growth rate of around 32% is projected globally through 2025.

Attractive Market Environment with Good Growth Prospects

Favorable demographics	9bn	People by 2050; >2bn 60 yrs or older	~8–11% CAGR for biopharma market 2021–2026
Rise of biosimilars	~32%	CAGR for biosimilar sales 2021–2025	
Strong R&D pipeline; advances in gene and cell therapy	>40%	Share of biologics in pharma R&D pipeline	

Recovery of the Laboratory Market after Prior Year Dampened by the Pandemic

The global laboratory market reached a volume of around €63 billion in the reporting year and is projected to grow at a compound annual growth rate of about 4% to 5% over the long term, according to estimates from several market observers. Market growth is related, among other things, to the levels of research and development spending in the individual end markets, which is partly linked to economic development. In 2021, leading suppliers of laboratory instruments and consumables reported an above-average increase in demand after growth in the prior year had been dampened by the pandemic. In addition to the base effect, the positive trend in the reporting year was due to the easing of coronavirus containment measures, which was accompanied by increasing laboratory activities in all sectors.

Labs in the pharmaceutical and biopharma industries are the leading customer groups for laboratory instruments and consumables. Research spending of this specific sector increased by 7% to around €190 billion in the reporting year according to EvaluatePharma. Against the backdrop of globally rising demand for medications, the industry is continuously investing in research to find new active pharmaceutical ingredients and in laboratory equipment needed to perform this drug discovery. The focus is being placed on technologies related to automation of process workflows and innovative analytical instruments that are equipped with enhanced or novel functionalities. Products from the field of bioanalytics, for example, have above-average growth rates within the laboratory market, and demand in the life science sector is generally growing faster than in other industries. According to the assessment of leading laboratory product manufacturers, this end market also proved to be particularly fast growing and continued to benefit from high additional demand in connection with Covid-19 test capacity and the development of vaccines and therapeutics.

Research and quality-assurance labs in the chemical and food industry are another important customer group. This segment’s demand for laboratory products depends in part on economic trends. Additional momentum can also be generated in this sector by regulatory changes, such as stricter requirements for quality control tests in the food industry. Demand from industrial end markets recovered significantly in 2021 following moderate development in the prior year.

Academic and public-sector research institutions also use laboratory instruments and consumables manufactured by Sartorius. Growth in demand is related to such factors as government budgets and funding programs, all of which can vary from one country to another. In the United States, the National Institute of Health (NIH) is the leading government agency for biomedical research and also the world’s largest research funding agency. The NIH’s budget has constantly grown over the last eight years. During the reporting year, it climbed again by about 3.9% to €37.5 billion. The financing environment for science has improved overall due to budget increases as part of substantial investment programs by the U.S. government. The European Union has likewise continuously scaled up its research spending in past budget cycles. Around €95.5 billion of research and innovation funding is to be provided in the period from 2021 to 2027, an increase of 19% compared with the previous program. In recent years, China has sharply increased government R&D funding, a trend that has fueled dynamic growth in the laboratory market there. Many manufacturers of laboratory products reported a significant rebound in demand from academic and public research institutions in the reporting year following a weak prior year due to the pandemic.

Competitive Position

The competitive environment of the Bioprocess Solutions Division is characterized by relatively high entry barriers arising in part from the biopharmaceutical industry's strong degree of regulation and its technological complexity. In addition, the supply industry has consolidated strongly in recent years owing to numerous takeovers so most of the market is served by just a few suppliers. In this environment, the Bioprocess Solutions Division operates as a total solutions provider, covering the core process steps in biopharmaceutical production and preceding process development. It has leading market positions in key technologies, especially in the areas of bioreactors, filtration, and the transportation and storage of liquids. The Bioprocess Solutions Division's principal competitors are certain business units at Merck KGaA, Thermo Fisher Scientific Inc., and Danaher Corporation.

The Lab Products & Services Division is positioned as a premium provider of laboratory instruments. It serves both R&D laboratories and quality control laboratories with a focus on the biopharmaceutical industry. The division's product range includes laboratory balances, pipettes, and instruments for bioanalytics, as well as a wide range of lab consumables. The division ranks among the leading providers worldwide in most of these areas. Major competitors include certain divisions at Thermo Fisher Inc., Merck KGaA, and Danaher Corporation. Among these competitors are also Mettler-Toledo Intl. Inc. for laboratory balances in particular; Eppendorf AG for pipettes; and companies such as Agilent Technologies Inc., Becton Dickinson Co., and PerkinElmer Inc. for cell analytics.

Sources: BioPlan: 18th Annual Report and Survey of Biopharmaceutical Manufacturing Capacity and Production, April 2021; IQVIA Institute: Global Medicine Spending and Usage Trends, April 2021; Evaluate Pharma: World Preview 2021, Outlook to 2026, July 2021; BioPlan: Global Assessment Report 2020, June 2021; www.fda.gov

Group Business Development

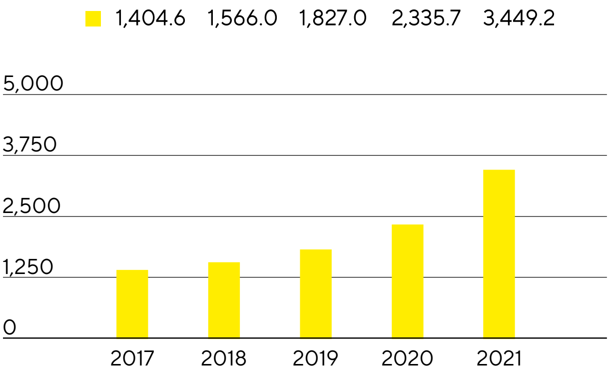
Sales Revenue and Order Intake

In the reporting year, Sartorius grew at an exceptionally dynamic rate of 49.3% to €3,449.2 million in constant currencies (reported: +47.7%) and again significantly more sharply than in the already strong previous year when growth had attained 30.2%. As a result, the Group again slightly exceeded the forecast that had projected an increase in consolidated sales revenue in constant currencies by 19% to 25% at the beginning of the year and had last been raised in July 2021 to a growth rate of about 45%. This increase was attributable to high demand for innovative products and technologies for efficient development and manufacturing of biopharmaceuticals. The need for products required for coronavirus vaccines and test kits added significant momentum, but did not play a dominant role. The impact of these pandemic-related effects on consolidated growth totaled around 16 percentage points. Moreover, the company's most recent acquisitions delivered very positive performance, contributing around 5 percentage points.

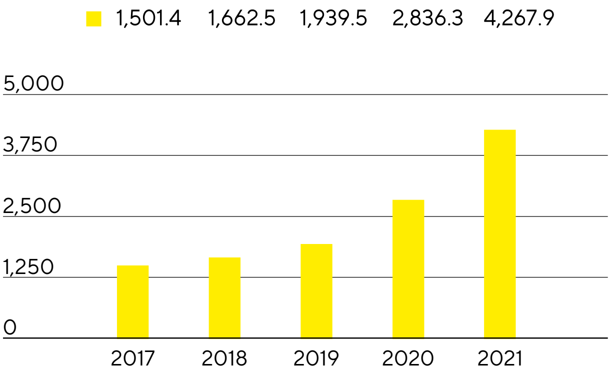
Order intake rose by 52.3% to €4,267.9 million in constant currencies (reported: +50.5%) and thus even slightly more strongly than consolidated sales revenue. About 13 percentage points of this gain were attributed to pandemic effects and close to 7 percentage points to acquisitions. While order intake was significantly higher than sales revenue up into the third quarter, also because some customers placed their orders further in advance than usual in the current situation, the ratio of order intake to sales revenue normalized during the second half of the year and was at the level of the company's long-term average toward the end of the year.

For a full comparison of the Group's business development with its forecast, see page 64.

Sales Revenue 2017 to 2021
€ in millions



Order Intake 2017 to 2021
€ in millions



Sales Revenue and Order Intake

€ in millions	2021	2020	in % reported	in % cc[1]
Sales revenue	3,449.2	2,335.7	47.7	49.3
Order intake	4,267.9	2,836.3	50.5	52.3

1 In constant currencies

High Growth Rates in Both Divisions

Both divisions and all business regions contributed to strong growth in fiscal 2021. The Bioprocess Solutions Division expanded at an exceptionally robust rate, despite a high prior-year base, by 54.7% to €2,727.0 million in constant currencies (reported: +53.0%). In particular, business with manufacturers of biopharmaceutical medications performed very well. Beyond this, pandemic-related demand essentially due to coronavirus vaccine production ramped up by some customers added about 20 percentage points to the division's sales expansion. Non-organic growth contributed by acquisitions was close to 5 percentage points.

The Lab Products & Services Division, which specializes in products and technologies for life science research and pharmaceutical laboratories, also saw sales revenue grow substantially by 32.0% in constant currencies to €722.2 million (reported: +30.6%) compared to prior-year performance dampened by the pandemic. The major part of this sales increase was organic, with components in coronavirus test kits accounting for around 6 percentage points. Acquisitions contributed about 6 percentage points. Development was especially dynamic in the strategic growth area of bioanalytics.

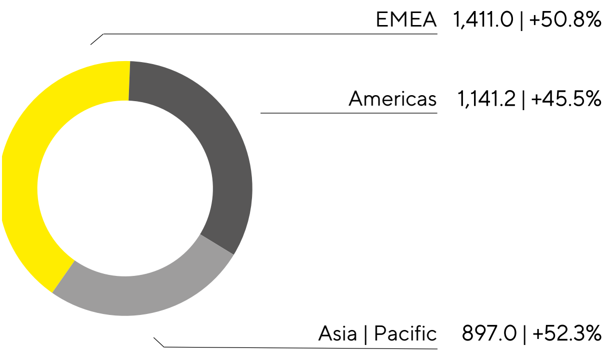
Sales by Division

€ in millions	2021	2020	in % reported	in % cc
Bioprocess Solutions	2,727.0	1,782.6	53.0	54.7
Lab Products & Services	722.2	553.0	30.6	32.0

Further information on the business development of the Group divisions is given on pages 54 et seq. for the Bioprocess Solutions Division and on pages 59 et seq. for the Lab Products & Services Division.

Gains in All Regions

Sales Revenue and Growth[1] by Region[2]
€ in millions unless otherwise specified



1 In constant currencies
2 Acc. to customers' location

Sartorius increased its sales revenue in 2021 in all three business regions with comparable dynamics.

Sales in the EMEA region that contributed the highest share of around 41% to total Group revenue amounted to €1,411.0 million, equating to a gain of 50.8%. Bolstered by especially robust business with vaccine manufacturers, the Bioprocess Solutions Division saw exceptionally strong growth of 61.8% in this region. The Lab Products & Services Division recorded a significant gain of 18.3% as well.

Sales revenue in the Americas region also rose sharply again by 45.5% to €1,141.2 million. Thus, the region's share of Group sales was 33%. The Bioprocess Solutions Division saw very dynamic development, recording a gain of 45.1%, as did the Lab Products & Services Division, which reported growth of 47.2% that was significantly driven by acquisitions and the division's rapidly growing bioanalytics business.

Business in the Asia | Pacific region, which accounted for around 26% of total Group revenue in 2021, generated the highest growth rate at 52.3% in the reporting year, attaining €897.0 million. In particular, the Bioprocess Solutions Division showed very strong growth, with sales up 57.7%. The Lab Products & Services Division expanded significantly by 37.3% compared to the prior-year revenue base that was relatively moderate due to the pandemic.

All growth rates are in constant currencies unless otherwise stated.

Sales by Region

€ in millions	2021	2020	in % reported	in % cc
EMEA	1,411.0	935.1	50.9	50.8
Americas	1,141.2	812.2	40.5	45.5
Asia | Pacific	897.0	588.4	52.5	52.3

Costs and Earnings

In the reporting year, the cost of sales rose by 42.6% to €1,610.3 million, and the cost of sales ratio decreased from 48.3% in the previous year to 46.7% against the background of favorable product mix effects.

The further cost items developed at a considerably underproportionate rate with respect to sales revenue due to economies of scale and to a partially deferred cost development related to the pandemic. Selling and distribution costs thus rose by 32.4% to €580.7 million so the ratio of these costs to sales revenue decreased year over year by around 2 percentage points from 18.8% to 16.8%. Expenses for research and development rose by 29.0% to €139.9 million. The corresponding ratio of R&D expenses to sales revenue was 4.1% (previous year: 4.6%). Regarding general administrative expenses, Sartorius reported an increase of 31.0% to €165.0 million, and the administrative expense ratio in 2021 was 4.8% (previous year: 5.4%).

The balance of other operating income and expenses was -€50.2 million in fiscal 2021 compared to the prior-year figure of -€77.3 million and essentially covered extraordinary items of -€40.7 million relative to -€57.7 million in 2020. These extraordinary items consisted primarily of expenses in connection with the most recent acquisitions as well as of expenses for various cross-divisional projects and rebranding.

EBIT nearly doubled, rising by 98.1% to €903.2 million. The respective EBIT margin rose as a result from 19.5% a year ago to 26.2% in the reporting year.

The financial result was -€234.7 million in 2021 relative to -€31.3 million a year earlier. This figure includes an expense item of -€207.7 million from the reporting date valuation of the share-based earn-out liability in connection with the acquisition of BIA Separations; this liability essentially resulted from the increase in the respective share price as well as strong sales development.

In the reporting year, tax expenses of €241.4 million were above the prior-year total of €125.2 million. The tax rate was 36.1% after 29.5% in the previous year. It should be noted that the valuation effect in the financial result mentioned above will not result in any subsequent tax impact. If this valuation effect would have had a tax impact, this would have yielded a tax rate of 27.6%.

Net profit for the period increased at a significantly overproportionate rate in relation to sales revenue, by 42.5% to €427.0 million (2020: €299.6 million).

Net profit attributable to shareholders of Sartorius AG surged 51.8% to €318.9 million in the reporting year, up from €210.1 million in 2020. Non-controlling interest stood at €108.1 million (previous year: €89.5 million), which essentially reflected shares in Sartorius Stedim Biotech S.A. not held by the Sartorius Group.

Statement of Profit or Loss

€ in millions	2021	2020	Δ in %
Sales revenue	3,449.2	2,335.7	47.7
Cost of sales	–1,610.3	–1,129.3	–42.6
Gross profit on sales	1,838.9	1,206.4	52.4
Selling and distribution costs	–580.7	–438.7	–32.4
Research and development costs	–139.9	–108.4	–29.0
General administrative expenses	–165.0	–125.9	–31.0
Other operating income and expenses	–50.2	–77.3	35.1
Earnings before interest and taxes (EBIT)	903.2	456.0	98.1
Financial income	29.3	35.9	–18.3
Financial expenses	–264.0	–67.1	–293.4
Financial result	–234.7	–31.3	–650.7
Profit before tax	668.4	424.7	57.4
Income taxes	–241.4	–125.2	–92.2
Net profit for the period	427.0	299.6	42.5
Attributable to:			
Equity holders of Sartorius AG	318.9	210.1	51.8
Non-controlling interest	108.1	89.5	20.8

1 The figures for the reporting period 2020 were restated due to the finalization of the purchase price allocation for the acquisitions of BIA Separations and WaterSep BioSeparations.

Underlying EBITDA

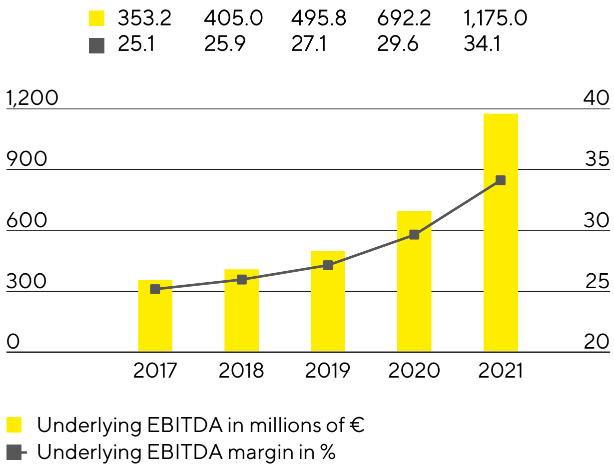
The Sartorius Group uses underlying EBITDA – earnings before interest, taxes, depreciation and amortization and adjusted for extraordinary items – as its key profitability indicator to provide a better picture of its operating development, also in an international comparison. More information on extraordinary items is provided on page 169.

Reconciliation from EBIT to Underlying EBITDA

€ in millions	2021	2020
EBIT	903.2	456.0
Extraordinary items	40.7	57.7
Amortization | depreciation	231.1	178.5
Underlying EBITDA	1,175.0	692.2

In fiscal 2021, the Sartorius Group strongly increased its earnings. Underlying EBITDA thus showed a significantly overproportionate increase in relation to sales revenue, by 69.7% to €1,175.0 million. The respective underlying EBITDA margin climbed to 34.1% (2020: 29.6%) and was therefore within the range of the Group's forecast, which had been specified at around 30.5% at the beginning of the reporting year and had been raised in July 2021 to around 34.0%. Besides being attributable to economies of scale, this considerable increase was influenced by partially deferred cost development, for example as a result of low travel activity because of the pandemic and deferred new hires in relation to sales growth. This trend subsided due to the intensified buildup of the workforce in the second half of the reporting year, as well as to rising costs in logistics and purchasing. Currency effects as well as the most recent acquisitions did not have any material impact on the company's margin development.

Underlying EBITDA[1] and Margin



1 Underlying = excluding extraordinary items

Underlying EBITDA by Division

	Underlying EBITDA € in millions	Underlying EBITDA margin in %
Group	1175.0	34.1
Bioprocess Solutions	986.3	36.2
Lab Products & Services	188.8	26.1

Underlying EBITDA of the Bioprocess Solutions Division was €986.3 million, significantly above the year-earlier figure by 71.3%. The division's respective margin was substantially up year over year from 32.3% to 36.2%. Economies of scale as well as deferred cost development in some areas due to the pandemic contributed to this rise in profitability. Currency effects as well as the most recent acquisitions did not have any material impact on the earnings margin.

In the Lab Products & Services Division, underlying EBITDA soared by 62.3% to €188.8 million and its corresponding margin reached 26.1% (previous year: 21.0%). This strong increase in profitability was based on economies of scale as well as a positive product mix that particularly reflected the growing significance of the bioanalytics portfolio. A positive effect resulted from the acquisition of the Octet business in 2020 in the bioanalytics area, while currency effects did not have a significant impact on the division's profit margin.

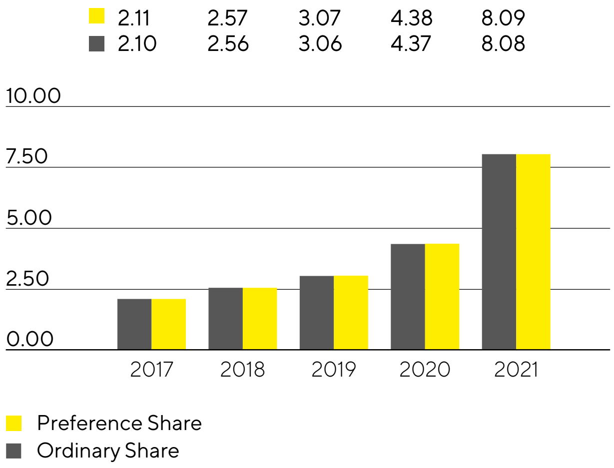
Relevant Net Profit

The relevant net profit attributable to the shareholders of Sartorius AG rose steeply compared to the previous year by 84.9% to €553.4 million. This figure is the basis for determining the profit to be appropriated, and is calculated by adjusting for extraordinary items and eliminating non-cash amortization, as well as is based on the normalized financial result and the normalized tax rate. Underlying earnings per ordinary share soared 85.0% to €8.08, up from €4.37 a year earlier, and by 84.8% per preference share to €8.09, up from €4.38 a year ago.

€ in millions	2021	2020[1]
EBIT	903.2	456.0
Extraordinary items	40.7	57.7
Amortization	88.4	59.7
Normalized financial result[2]	−28.1	−23.8
Normalized income tax (27%)[3]	−271.1	−148.4
Underlying earnings	733.1	401.3
Non-controlling interest	−179.7	−102.0
Underlying earnings after taxes and non-controlling interest	553.4	299.3
Underlying earnings per share		
per ordinary share (in €)	8.08	4.37
per preference share (in €)	8.09	4.38

1 The figures for the 2020 reporting period were restated due to the finalization of the purchase price allocation for the acquisitions of BIA Separations and WaterSep BioSeparations.
2 Financial result adjusted for valuation effects from the subsequent measurement of contingent purchase price liabilities as well as for effects of foreign currency translation and hedging.
3 Income tax considering the average expected group tax rate, based on the underlying profit before tax.

Underlying Earnings per Share[1]
in €



1 After non-controlling interest, adjusted for extraordinary items and non-cash amortization, as well as based on the normalized financial result and the normalized tax rate.

Further information on earnings development and extraordinary items for the Group divisions is given on pages 56 et seq. and 61 et seq.

Research and Development

Sartorius continuously expands its product portfolio by investing in both the new and further development of its products, as well as in the integration of new technologies through alliances. In 2021, the Sartorius Group spent €139.9 million on R&D, corresponding to an increase of 29.0% over the previous year's investment. The ratio of R&D costs to sales revenue stood at 4.1%, slightly below the previous year's level of 4.6%, against the backdrop of the strong increase in sales revenue.

The International Financial Reporting Standards (IFRS) require certain development costs to be capitalized on the statement of financial position and then to be amortized over subsequent years. In the reporting year, these development investments amounted to €50.9 million compared with €43.6 million the year before. This equates to a share of 26.7% (previous year: 28.7%) of the Group's total R&D expenses. Scheduled amortization related to capitalized development costs totaled €24.3 million in 2021 (previous year: €22.1 million). These expenses were disclosed in the cost of sales. The gross capital expenditure ratio, which is even more meaningful for assessment of innovation-related expenses and includes capitalized development costs, was 5.5%, down from prior-year ratio of 6.5%, because of the significant increase in sales revenue.

At Sartorius, we pursue a strategic intellectual and industrial property rights policy across our divisions to protect our expertise. The Group systematically monitors compliance with these rights on a cost | benefit basis to determine which specific individual rights are to be maintained.

In 2021, Sartorius filed a total of 155 applications for intellectual and industrial property rights (2020: 273). As a result of these applications, including those of prior years, we were issued 298 patents and trademarks during the reporting year (2020: 459). As of the reporting date, we had a total of 5,479 patents and trademarks in our portfolio (2020: 5,110).

Further information is provided in the sections covering the individual divisions on pages 54 et seq. and 59 et seq.

Capital Expenditures

Against a backdrop of exceptionally strong organic growth, Sartorius invested considerably in building up new capacities in all regions in the reporting year. In this context, expansion projects already planned were moved ahead of schedule, accelerated and extended. In addition to significantly expanding production capacities, the investment program aims to further diversify and increase the flexibility of the company's production network. Several expansion projects were already completed in 2021 and thus already contributed to meeting high demand. In the current reporting year, the company plans to complete a number of additional projects.

In 2021, capital expenditures of €407.2 million were significantly higher than the prior-year figure of €240.3 million, as planned. The ratio of capital expenditures to sales revenue was 11.8% and thus slightly below the forecast of 12% adjusted at mid-year (2020: 10.3%) due to strong sales growth.

Investments were made, among others, in Group headquarters based in Göttingen, Germany, where capacities for membrane manufacturing are being expanded and new laboratory space for product development is under construction.

At the site in Yauco, Puerto Rico, Sartorius is extending cleanroom capacity for manufacturing products for the Separation and Fluid Management areas. In addition, a production facility for cell culture media is being set up here for the first time and is scheduled to go into operation in 2023.

Extensive investments were made in the Asia | Pacific region, such as in Beijing, China, where additional cleanroom space was created for the production of filters and single-use bags, as well as a quality control laboratory. In Songdo, South Korea, Sartorius is planning to build a plant for manufacturing cell culture media and assembling sterile consumables. Moreover, a technology center for product demonstrations for customers and consultations as well as laboratory facilities are scheduled to be built at this new site that is located in the center of a biopharma hub.

Due to strong growth in demand and order intake, production capacities were also expanded in the reporting year at other sites. For instance, expansion projects were conducted in Finland, France, Israel, Slovenia, Tunisia, and the U.K. Beyond these sites, a new Customer Interaction Center used for product demonstrations and factory acceptance testing was opened in each of the countries in China, the USA, and Germany to strengthen customer proximity and regional presence.

In addition, investments were made in the digital infrastructure of the Group. Thus, Group-wide implementation of a new CRM system was completed.

Employees

The numbers of employees reported include all staff members of the Sartorius Group except for vocational trainees, interns, employees on extended leaves of absence, and those participating in an early retirement plan. Numbers are reported as head counts.

As of the reporting date on December 31, 2021, the Sartorius Group employed 13,832 people in 37 countries, 3,195 people or 30.0% more than in the previous year. This number includes the 125 employees who joined the Sartorius Group in the reporting year through acquisitions. Owing to the high increase in sales, numerous additional employees were hired especially for production functions. Overall, however, the buildup of workforce progressed at a deferred rate in comparison with sales development up to mid-2021 due to the lockdown in many countries and the associated reduction in recruiting activities. This affected in particular our sales, marketing, and development functions. In contrast, during the second half of the year, new employees were increasingly hired again in these functions as well.

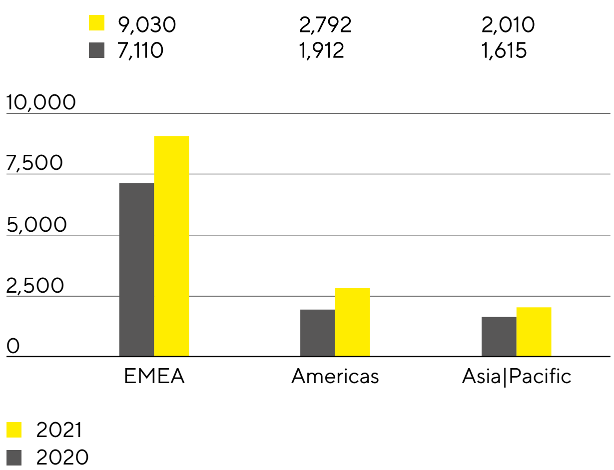
Employees

	2021	2020	Increase in %
Group	13,832	10,637	30.0%
Bioprocess Solutions	10,745	7,821	37.4%
Lab Products & Services	3,087	2,816	9.6%

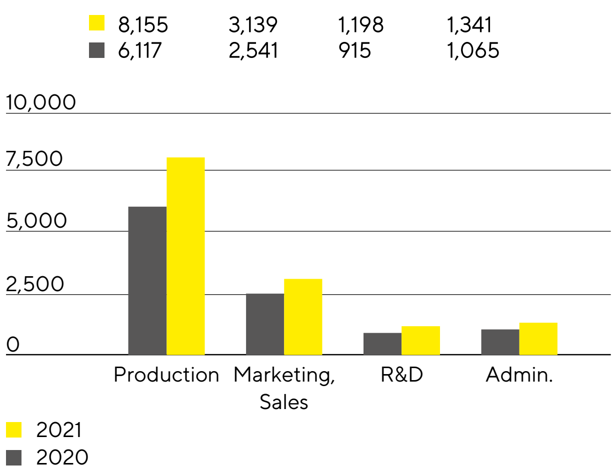
As of the end of the reporting year, the Bioprocess Solutions Division employed 10,745 people (2020: 7,821) and the Lab Products & Services Division 3,087 (2020: 2,816).

Employees in central administrative functions were allocated to the divisions in proportion to the cost of the services they performed during the year.

Employees by Region



Employees by Function



Head count in the EMEA region rose by 1,920 new employees, a gain of 27.0%. As of the end of the reporting year, Sartorius employed 4,637 people in Germany, or 33.5% of the total Group workforce.

The Americas region reported the highest increase in staff, with growth of 46.0% or 880 new people. The number of employees in the Asia | Pacific region grew by 24.5% or 395 people.

At the end of 2021, around 59% of all Sartorius employees worked in production. This head count includes production staff and employees in other areas such as technical services. The number of employees in this area was 8,155 or 33.3% more than in the prior year.

In marketing and sales, 3,139 people were employed at year-end, an increase of 23.5%. They made up about 23% of the total Group workforce.

Around 9% of all our employees worked in research and development. The total number of R&D staff was 1,198, representing growth of 283 employees or 30.9% over the prior year.

Administration recorded 1,341 employees as of the reporting date. This corresponds to an increase of 25.9% compared with the prior-year period and a share of 10% of all Sartorius staff.

For more information on employees, see the Non-Financial Group Statement starting on page 122.

Net Worth and Financial Position

Cash Flow

In the reporting year, Sartorius again significantly increased its cash flow from operating activities. This figure amounted to €865.8 million relative to €511.5 million a year ago, which equates to a rise of 69.3%. The development is essentially due to growth in earnings, whereas growth-driven buildup of working capital as well as higher tax payment liabilities had a dampening effect. The sale of trade receivables within the scope of a factoring program resulted in an inflow of €40.6 million (inflows in the previous year: €88.6 million).

Due to exceptionally high demand, Sartorius has been driving the expansion of its production capacities full speed ahead. In particular, the company's investment program covers ahead-of-schedule expansion of sites in Germany and Puerto Rico. Cash outflows from investing activities increased in the reporting period by 72.3% to €427.9 million. Because of acquisition-related expenses of €141.7 million in connection with the most recent purchases of the companies Xell and CellGenix, cash flow from investing activities and acquisitions was -€569.6 million. The prior-year figure of -€1,270.5 million essentially included cash outflows related to the acquisition of the life science businesses from Danaher as well as of BIA Separations.

Primarily driven by dividend disbursements and repayment of loans, cash flow from financing activities amounted to -€165.2 million in the reporting year relative to €907.5 million in fiscal 2020 in which Sartorius had financed acquisitions by issuing new note loans ("Schuldscheindarlehen"), among other means.

Cash Flow Statement

€ in millions	2021	2020
Cash flow from operating activities	865.8	511.5
Cash flow from investing activities and acquisitions	–569.6	–1,270.5
Cash flow from financing activities	–165.2	907.5
Cash and cash equivalents	342.8	203.4
Gross debt	2,075.5	2,087.4
Net debt	1,732.7	1,883.9

Consolidated Statement of Financial Position

The balance sheet total of the Sartorius Group was €5,697.9 million as of the end of fiscal 2021 and thus €1,213.2 million higher than the prior-year level. This rise reflects the increase in property, plant and equipment as a result of continuous investing activities as well as the growth-driven buildup of working capital, among other things. Non-current assets thus rose by €625.7 million to €3,901.1 million; current assets increased by €587.5 million to €1,796.8 million.

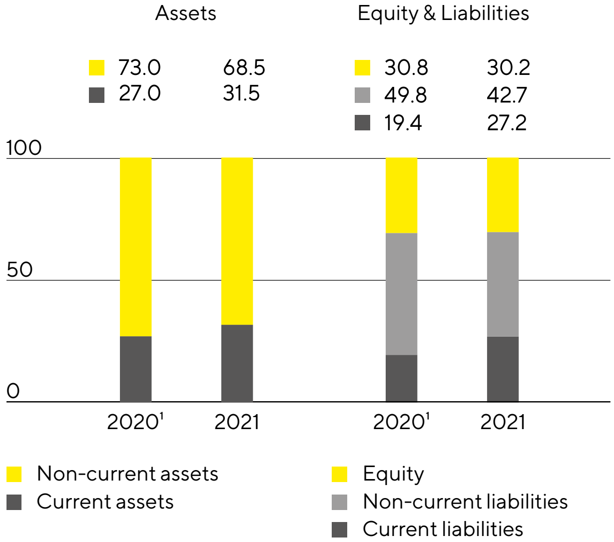
Key Figures for Working Capital

in days		2021	2020[3]
Days inventory outstanding			
Inventories | Sales revenue[1]	x 360	93	83
Days sales outstanding			
Trade receivables | Sales revenue[1]	x 360	44	47
Days payables outstanding			
Trade payables | Sales revenue[1]	x 360	54	49
Net working capital days			
Net working capital[2] | Sales revenue[1]	x 360	83	81

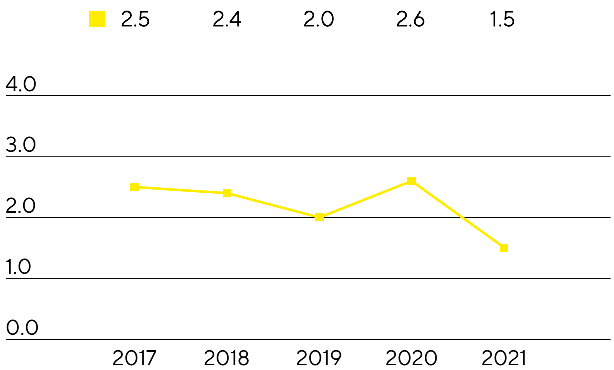
1 Including pro forma sales of recent acquisitions
2 Sum of inventories and trade receivables less the trade payables
3 The figures for the reporting period 2020 were restated due to the finalization of the purchase price allocation for the acquisitions of BIA Separations and WaterSep BioSeparations

Equity grew by €339.9 million to €1,720.2 million as of year-end. The equity ratio was 30.2% (previous year: 30.8%). In the reporting year, current and non-current liabilities for the Sartorius Group of €3,977.7 million were higher than the previous year's figure of €3,104.4 million, which was due to growth.

Balance Sheet Structure
in %



Ratio of Net Debt to Underlying EBITDA[2]



1 The figures for the 2020 reporting period were restated due to the finalization of the purchase price allocation for the acquisitions of BIA Separations and WaterSep BioSeparations
2 Quotient of net debt and underlying EBITDA over the past 12 months, including the pro forma amount contributed by acquisitions for this period

At the end of fiscal 2021, gross debt stood at €2,075.5 million relative to €2,087.4 million in fiscal 2020 and is comprised of liabilities to banks, including note loans ("Schuldscheindarlehen"), as well as lease liabilities. Due to significantly increased credit balances at banks, net debt decreased from €1,883.9 million a year earlier to €1,732.7 million in the reporting year.

In relation to the debt financing capacity of the Sartorius Group, the ratio of net debt to underlying EBITDA is a key metric. It is defined as the quotient of net debt and underlying EBITDA over the past 12 months, including the pro forma amount contributed by acquisitions for this period. This ratio was 1.5 as of December 31, 2021, down from 2.6 in the prior year, predominantly as a result of the substantial increase in earnings and despite substantial investments as well as the acquisitions made in the reporting year, and was thus below the ratio last forecasted (slightly below 2.0).

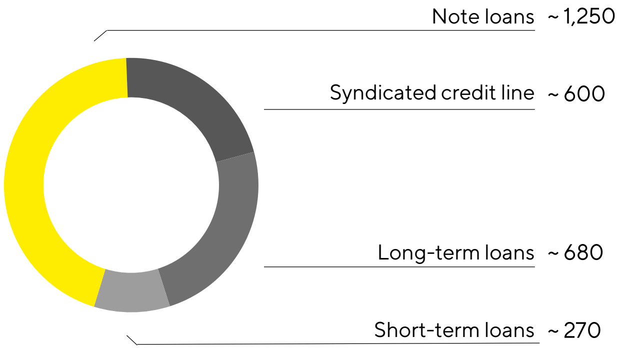
Reconciliation

€ in millions	2021	2020
Gross debt	2,075.5	2,087.4
- Cash & cash equivalents	342.8	203.4
Net debt	1,732.7	1,883.9
Underlying EBITDA (12 months)	1,175.0	692.2
+ Pro forma EBITDA from acquisitions (12 months)	6.1	25.4
Pro forma underlying EBITDA	1,181.1	717.6
Ratio of net debt to underlying EBITDA	1.5	2.6

Financing | Treasury

Sartorius covers its operational and strategic financing needs through a combination of operating cash flows and the assumption of short-, medium- and long-term financial liabilities. The major debt financing instruments are shown in the graphic below.

Main Financing Instruments
€ in millions

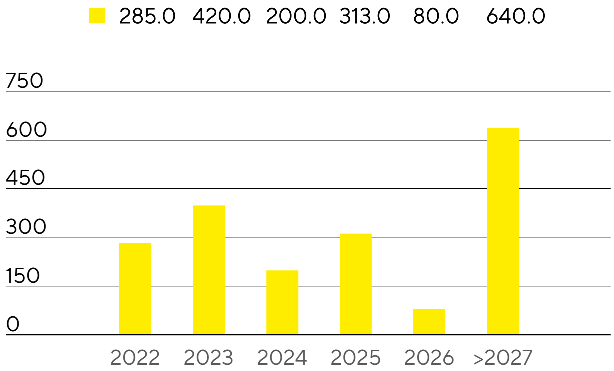


A major pillar in our financing mix is a syndicated credit line of €600 million with a term up to 2024 and an extension option. In addition, Sartorius has diverse short-term credit lines totaling around €270 million. As of December 31, 2021, the total volume of all available credit lines amounted to €870 million of which around €33 million was used. Thus, the available credit lines unused as of the end of 2021 was €837 million.

Besides these credit lines, Sartorius placed several note loans ("Schuldscheindarlehen") with a total aggregate volume outstanding of around €1,250 million at year-end. In addition, the company has several long-term loans in place that total around €680 million and are being used in part for the expansion of production capacities.

The financing instruments mentioned above comprise those with both fixed and variable interest rates. The maturity profile of the Group's financing instruments is broadly and appropriately diversified.

Maturity Profile of the Financing Facilities[1]
€ in millions



1 As of December 31, 2021, major financing instruments

Due to its global business activities, Sartorius is exposed to the usual fluctuations in foreign exchange rates, which it partially hedges by forward contracts. At the end of 2021, foreign exchange contracts amounted to €519 million on a reported basis, with a market value of -€9.9 million.

Business Development of Bioprocess Solutions

Exceptionally strong sales growth and jump in profitability

Dynamic development of core business; additional pandemic-related momentum and positive development of acquisitions

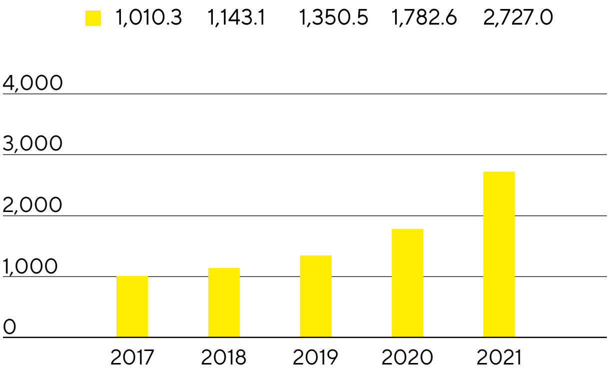
Strong gains across all product categories and regions

Division sales	Order intake	Underlying EBITDA margin
€2,727.0m	€3,483.5m	36.2%
In constant FX: +54.7%	In constant FX: +57.6%	+3.9 percentage points

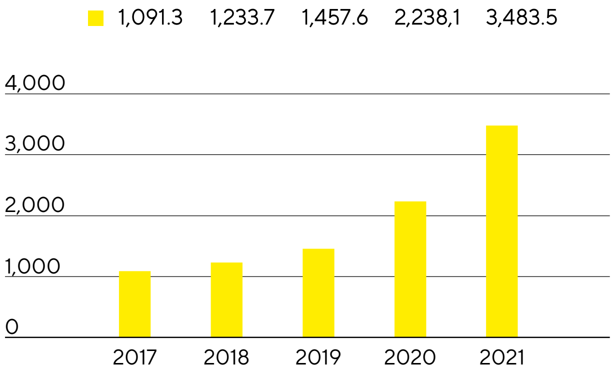
Sales Revenue and Order Intake

In the reporting year, the Bioprocess Solutions Division grew at an exceptionally strong rate by 54.7% to €2,727.0 million in constant currencies (reported: +53.0%) after it had already expanded by more than a third in the previous year. As a result, the division's performance exceeded the forecast that had projected sales growth of 22% to 28% at the beginning of the reporting year and had been raised in July 2021 to a sales increase of 50%. In particular, business with manufacturers of biopharmaceutical medications performed very well across all product areas and regions. Beyond this, pandemic-related demand, essentially due to coronavirus vaccine production ramped up and extended by some customers, added close to 20 percentage points to sales expansion. The major part of this growth was achieved organically, supported by production capacities expanded at several sites and by overall stable, yet strained supply chains. The most recent acquisitions also saw positive development, contributing close to 5 percentage points to revenue growth.

Sales Revenue 2017 to 2021
€ in millions



Order Intake 2017 to 2021
€ in millions



Sales Revenue and Order Intake

€ in millions	2021	2020	in % reported	in % cc
Sales revenue	2,727.0	1,782.6	53.0	54.7
Order intake	3,483.5	2,238.1	55.6	57.6

In 2021, the Bioprocess Solutions Division increased its sales revenues in all business geographies. EMEA, the region generating the highest share of around 41% to total revenue, saw an especially steep increase, with sales soaring 61.8% to €1,130.5 million, bolstered by particularly robust business with vaccine manufacturers. Accounting for around 34% of division sales, the Americas region reported growth of 45.1% to €913.1 million. The Asia | Pacific region also showed very strong growth, with sales up 57.7% to €683.5 million, contributing a share of 25% to division revenue.

Order intake developed even more strongly than sales revenue, surging by 57.6% in constant currencies (reported: +55.6%) to €3,483.5 million, with pandemic effects accounting for around 15 percentage points and acquisitions for 7 percentage points. While order intake was significantly above sales revenue up into the third quarter, also because some customers in the current situation placed their orders further in advance than usual, the ratio of order intake to sales revenue normalized during the second half of the year and was at the level of the company's long-term average toward the end of the year.

Sales by Region

€ in millions	2021	2020	in % reported	in % cc
EMEA	1,130.5	698.5	61.9	61.8
Americas	913.1	651.3	40.2	45.1
Asia | Pacific	683.5	432.9	57.9	57.7

Overproportionate Increase in Earnings

Underlying EBITDA of the Bioprocess Solutions Division increased at a significantly overproportionate rate in relation to sales revenue, growing by 71.3% to €986.3 million. The division's respective margin rose year over year to 36.2% (previous year: 32.3%) and thus slightly exceeded the forecast that had projected around 33% at the beginning of the year and had last been updated in July 2021 to around 36.0%. Besides being attributed to economics of scale, the increase in profitability is also due to a cost base that rose only slowly in some areas. This trend subsided due to the intensified buildup of the workforce in the second half of the reporting year, as well as to rising costs in logistics and purchasing. Currency effects as well as the most recent acquisitions did not have any material impact on the development of the division's earnings margin.

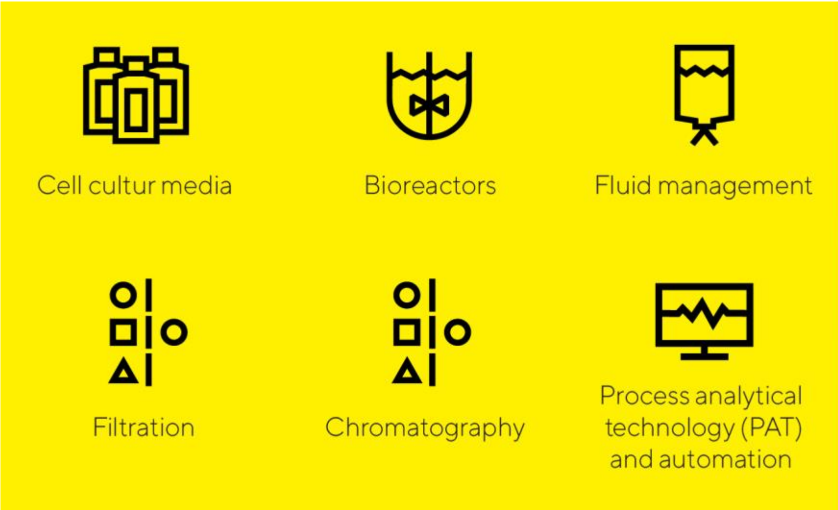
Underlying EBITDA and EBITDA Margin

	2021	2020
Underlying EBITDA in millions of €	986.3	575.9
Underlying EBITDA margin in %	36.2	32.3

In the year under review, the Bioprocess Solutions Division recorded extraordinary items of -€32.1 million relative to -€36.2 million a year earlier. These items predominantly consisted of expenses in connection with the most recent acquisitions as well as for various cross-divisional projects and rebranding.

Products and Sales

The Bioprocess Solutions Division markets products and services for the entire added-value chain in biopharmaceutical production and preceding process development. The division's portfolio includes cell lines, cell culture media, bioreactors, a wide range of products for separation, purification and concentration, and products and systems for storage and transportation of intermediate and finished biological products.



Sartorius expanded the product portfolio of its Bioprocess Solutions Division for manufacturing cell and gene therapeutics by two acquisitions:

- CellGenix produces critically essential cell culture components, such as growth factors, cytokines and media in GMP quality, for manufacturing cell and gene therapy products

- The cell culture specialist Xell develops and produces media and feed supplements for cell cultures, especially for manufacturing viral vectors that are used in gene therapeutics and vaccines

Beyond these acquisitions, the Bioprocess Solutions Division has been collaborating with Waters Corporation since the reporting year. As part of this collaboration, a Waters bioprocess analyzer based on mass spectroscopy will be combined with the Sartorius multi-parallel bioreactor system, enabling specific analytical steps during drug discovery and cell line development to be performed directly in the production environment, i.e., at-line measurements, so these steps do not have to be outsourced to external laboratories for sample testing, the usual procedure until now. This solution greatly accelerates the timeline for process development for the benefit of users.

In addition, Sartorius launched on the market new software versions for design of experiments (DoE) and for multivariate data analysis, which accelerate development and optimization of processes and enhance evaluation of complex datasets generated across the biopharmaceutical production process, respectively.

Sales Activities

The Bioprocess Solutions Division markets its product portfolio directly. Sales activities for key accounts are coordinated and supported by global key account management.

In the reporting year, many direct customer contacts were enabled through the use of digital communication tools, even after pandemic-mandated travel and distancing restrictions were eased. Videoconferencing and augmented reality continue to be increasingly used for direct interaction, such as for product demonstration, training and commissioning. To strengthen the sales organization, the division is concentrating on expanding its international presence, especially by more recruitment. A further focus is on the ongoing enhancement of sales effectiveness, for example, by specialized training for employees.

Product Development

Development activities at Sartorius essentially focus on technology areas such as membranes, which are the core component of our filter products; various technology platforms such as single-use containers for fluid management in biopharmaceutical processes and sensors; and control technologies for processes such as fermentation and cell cultivation. Additional focal areas entail developments in materials and components that include plastics, elastomers and intelligent polymers; expanded data analysis; and cell line development.

Our largest site for product development is in Göttingen, Germany. Further key activities take place in France, Germany, India, the USA, the U.K., and Sweden, as well as in Israel and Slovenia.

Production and Supply Chain Management

Bioprocess Solutions has a very well-developed global production network that was expanded at many sites in the reporting year. The largest production facilities are located in Germany, France and Puerto Rico. Beyond these locations, this division also manufactures in the U.K., Switzerland, Tunisia, India, the United States, China, Israel, and in Slovenia. Additional sites in Germany have been added by the most recent acquisitions.

Despite the restrictions in worldwide logistics as a result of the coronavirus pandemic, the company's supply chains proved to be strained, yet mostly stable. A few preliminary products, raw materials, components and services took longer to deliver or their availability was temporarily limited. This was reflected in some cases by correspondingly extended delivery times for our own products.

Sartorius expanded its production in all regions due to high demand in its core business and to additional customer needs related to coronavirus vaccines and Covid-19 therapeutics. On top of this, the company increasingly hired additional production staff and has been manufacturing at a few sites around the clock seven days a week.

Sartorius started up operations at a new Customer Interaction Center (CIC) in China for biopharmaceutical customers. The CIC enables customers to test complex systems at our site first before these are delivered to and set up at their plant facilities. A significantly expanded application, validation and service center was opened at the company site in Shanghai, and a customer test laboratory in Havant, U.K. Production facilities were also expanded in Israel and Slovenia.

Business Development of Lab Products & Services

Significant increase in sales revenue and earnings compared to prior-year development dampened by the pandemic

Strong organic growth; bioanalytics business especially dynamic

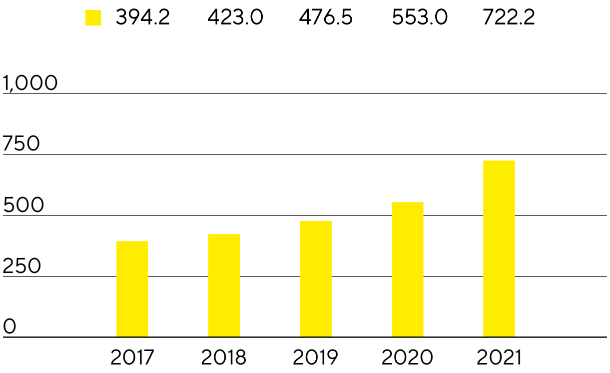
Excellent performance of the previous year's acquisition

Division sales	Order intake	Underlying EBITDA margin
€722.2m	€784.4m	26.1%
In constant FX: +32.0%	In constant FX: +32.6%	+5.1 percentage points

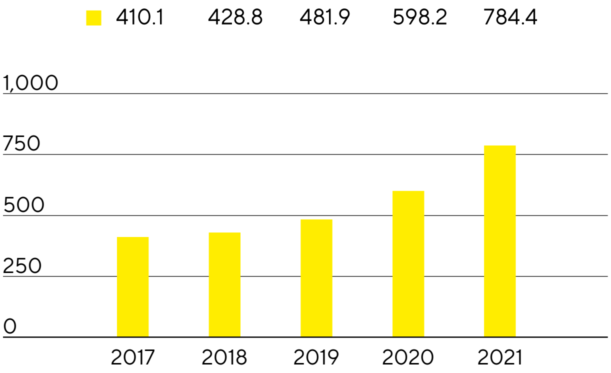
Sales Revenue and Order Intake

The Lab Products & Services Division saw strong sales revenue growth, recording an increase of 32.0% in constant currencies to €722.2 million (reported: +30.6%), compared to the prior-year period dampened by the pandemic. The division thus exceeded its forecast, which projected a sales increase of 10% to 16% at the beginning of the year and was last raised in July 2021 to 30%. The major part of this growth was organic, with components used in coronavirus test kits accounting for around 6 percentage points. Acquisitions contributed about 6 percentage points to the division's sales revenue growth. Performance was especially dynamic for business with bioanalytical instruments, which life science customers use to develop medications and cell lines.

Sales Revenue 2017 to 2021
€ in millions



Order Intake 2017 to 2021
€ in millions



Sales Revenue and Order Intake

€ in millions	2021	2020	in % reported	in % cc
Sales revenue	722.2	553.0	30.6	32.0
Order intake	784.4	598.2	31.1	32.6

In EMEA, the region contributing the highest share of revenue of around 39%, the division achieved sales revenue of €280.5 million, which equates to a significant increase of 18.3% compared with the previous year. Sales grew very strongly in the Americas region, whose share of division revenue was around 32%, by 47.2% to €228.2 million. This expansion was substantially influenced by acquisitions and the fast-growing bioanalytics business. The Asia | Pacific region, which accounted for around 29% of the Lab Products & Services Division's business, expanded by 37.3% to €213.5 million, compared to a prior-year revenue base that was relatively moderate due to the pandemic.

Order intake also developed very dynamically, rising 32.6% in constant currencies (reported: +31.1%) to €784.4 million.

Sales by Region

€ in millions	2021	2020	in % reported	in % cc
EMEA	280.5	236.6	18.6	18.3
Americas	228.2	160.9	41.8	47.2
Asia | Pacific	213.5	155.5	37.3	37.3

Earnings

In the reporting year, the Lab Products & Services Division significantly increased its underlying EBITDA by 62.3% to €188.8 million. The corresponding margin reached 26.1% (previous year: 21.0%) and was thus markedly above the margin of around 23% projected at the beginning of the reporting year and in line with the forecast last raised in July 2021 to around 26.0%. This strong increase in profitability was due, in particular, to economies of scale as well as a favorable product mix based on the strong growth of the bioanalytics business. In addition, the margin was positively influenced by partially deferred cost development in some areas due to the pandemic. This trend subsided due to the intensified buildup in the workforce in the second half of the reporting year, as well as to rising costs in logistics and purchasing. A positive effect resulted from the acquisition of the Octet business in the area of bioanalytics, which was made in fiscal 2020, while exchange rates did not have any material impact on the division's earnings margin.

Underlying EBITDA and EBITDA Margin

	2021	2020
Underlying EBITDA in millions of €	188.8	116.3
Underlying EBITDA margin in %	26.1	21.0

The Lab Products & Services Division recorded extraordinary items of –€8.7 million in the reporting year relative to –€21.5 million a year ago. These were predominantly related to the most recent acquisitions as well as to expenses for various cross-divisional projects and rebranding.

Products and Sales

The Lab Products & Services Division focuses with its products on research laboratories in the pharmaceutical and biopharmaceutical industries as well as on academic research institutes.

In the area of bioanalytics, the division offers life science customers innovative systems for cell analysis. These greatly accelerate the otherwise time-intensive discovery of medical drug candidates by automating and digitalizing core steps in analysis. Sartorius expanded its bioanalytics portfolio by acquiring a majority stake in ALS Automated Lab Solutions on January 3, 2022. This laboratory technology company develops, manufactures, and markets solutions for automated analysis, selection, and isolation of cells. Moreover, in the reporting year, Sartorius introduced smaller versions of its market-leading systems for label-free real-time analysis of biomolecular interactions and thus expanded its product range in this area. Based on a patented technology, these systems help customers in the biopharmaceutical industry to increase the efficiency of essential steps in the development of molecules, cell lines, and processes. With the new versions of these analytical systems, the division now also addresses the needs of academic research institutes and biotech startups that tend to examine relatively small volumes yet, at the same time, do not wish to compromise on functionality or performance capability.

Beyond this, the product range of the Lab Products & Services Division includes a broad array of premium laboratory instruments for sample preparation, such as laboratory balances, pipettes and lab water systems, as well as lab consumables, such as filters and microbiological test kits. This Sartorius portfolio is tailored to the biopharmaceutical industry and additionally focuses on research and quality control labs in the chemical and food industries. The division expanded its product array by launching new vacuum filtration systems and dosing stations for lab water.

The services offered by the Lab Products & Services Division cover the entire life cycle of laboratory instruments, from device installation and commissioning to validation, calibration, verification and regular maintenance to repair. These services are not limited to Sartorius instruments alone; they are offered to a partial extent for devices from other manufacturers as well. This extensive range enables our customers to minimize the number of service providers they use and to reduce complexity and costs.

Beyond this, Sartorius application laboratories in all regions offer customers the opportunity to test Sartorius products, even using their own samples, and to take training courses.

Sales Activities

The division sells its products directly and through laboratory distributors, focusing on direct sales that is continuously being expanded along with the company's increasing alignment with the needs of life science customers. In aligning its activities, the division is increasing using digital channels. Expansion of its e-commerce activities in the reporting year enhanced the availability and ordering process of products for our customers, among other features offering greater convenience

Besides extending sales structures, the company also concentrates on the ongoing enhancement of sales efficiency, in part through the creation of synergies between the two divisions. The Lab Products & Service Division therefore gains access to customers of the Bioprocess Solutions Division, and the latter can likewise tap into new sales opportunities in return. In the reporting year, the sales teams of both divisions received cross-divisional training to better identify the needs of customers for the products of the respective other division.

Product Development

The division has extensive technological expertise in the areas of bioanalytics, laboratory instruments and laboratory consumables. Software and hardware advancements in our cell analysis products create many new evaluation opportunities for our customers. They are the foundation for the development of new tools capable of processing and visualizing vast quantities of data appropriately based on specific applications. We expect that such software solutions will become increasingly important.

Compliance with regulatory requirements is critical for our customers. Product development priorities for Sartorius therefore include data management, connectivity and process automation.

Most of the research and development for the Lab Products & Services Division is conducted at Group headquarters in Göttingen, Germany, but Sartorius also carries out R&D activities at its sites in Finland and the U.K. as well as in the USA.

Production and Supply Chain Management

The Lab Products & Services Division operates plants in Germany, China, Finland, the U.K. and the USA. These plants serve as centers of competence and tend to focus on one product group or a small set of product groups. In the reporting year, for example, laboratory balances were manufactured in Germany and China, pipettes in Finland, and bioanalytical systems in the USA and China. Microbiological test kits are produced in the U.K. and most membrane-based products in Germany.

Despite the restrictions in global logistics as a result of the coronavirus pandemic, supply chains proved to be strained, but largely stable. Due to high demand, also generated by the coronavirus pandemic, manufacturing operations were expanded at some of the division's plants.

Start

Assessment of Economic Position

In 2021, Sartorius grew at an exceptionally dynamic rate and, again, significantly more sharply than in the already strong previous year. The main growth driver was once again the high demand for innovative products and technologies for the development and production of biopharmaceuticals. The need for products required for coronavirus vaccines and test kits added significant momentum, but did not play a dominant role. Moreover, the company's most recent acquisitions delivered positive performance and, in the Lab Products & Service Division, the dynamically growing bioanalytics business contributed to the strong increase in sales revenue and earnings.

The start to the reporting year was already very positive so that Sartorius substantially raised its forecast for both divisions and the entire Group in March 2021. The high pace of growth also continued on into the second quarter based on high order intake and, therefore, management significantly raised the sales revenue and profitability targets at the end of the first half of the year. The company also sustained its strong business performance in the second half of the year, with rates of increase slightly lower than those in 2020 due to the high prior-year basis of comparison.

Consolidated sales revenue rose in 2021 by 49.3% in constant currencies to €3,449.2 million. The Group's earnings margin, measured on the basis of underlying EBITDA, climbed to 34.1%. The Bioprocess Solutions Division grew its sales revenue by 54.7% in constant currencies to 2,727.0 million and reached an underlying EBITDA margin of 36.2%. The Lab Products & Services Division increased its sales revenue by 32.0% in constant currencies to €722.2 million at an earnings margin of 26.1%. As a result, both divisions as well as the Sartorius Group exceeded the forecast last raised in July 2021.

The ratio of net debt to underlying EBITDA for the last twelve months was 1.5 as of December 31, 2021, slightly below the forecasted figure of 2.0 due to strong net cash flow and the increase in earnings. The Sartorius Group continues to have significant financing flexibility to implement its strategy.

In the context of its ambitious growth targets, Sartorius has been continuously investing in the expansion of its manufacturing capacities and in its digital infrastructure over the past few years. In 2021, some expansion projects were moved ahead of schedule and extended due to the company's exceptionally strong growth. Despite these measures, the ratio of capital expenditures (CAPEX) to sales revenue remained at 11.8%, lower than the forecast released at the beginning of the reporting year as well as slightly below the last updated guidance of about 12%.

Projected | Actual Comparison for the Year 2021

	Actual 2020	Guidance January 2021	Guidance March 2021	Guidance July 2021	Actual 2021
Sartorius Group					
Sales growth[1]	30.2%	~19% - 25%	~35%	~45%	49.3%
Underlying EBITDA margin in %	29.6%	~30.5%	~32%	~34%	34.1%
Net debt to underlying EBITDA	2.6	slightly below 2.5[2]	~2.0[2]	slightly below 2.0[2]	1.5
CAPEX ratio	10.3%	~15%	~14%	~12%	11.8%
Sartorius Divisions					
Bioprocess Solutions					
Sales growth[1]	34.4%	~22% - 28%	~40%	~50%	54.7%
Underlying EBITDA margin in %	32.3%	~33%	~34%	~36%	36.2%
Lab Products & Services					
Sales growth[1]	18.1%	~10% - 16%	~20%	~30%	32.0%
Underlying EBITDA margin in %	21.0%	~23.0%	~24%	~26%	26.1%

1 In constant currencies
2 Possible acquisitions are not considered

Annual Financial Statements of Sartorius AG

The retained profit of Sartorius AG is the key reference value for the payment of dividends to our shareholders. Whereas the Sartorius Group financial statements are drawn up according to the International Financial Reporting Standards (IFRS), the annual financial statements for Sartorius AG are prepared by applying the rules and regulations of the German Commercial Code (HGB).

The Management Report of Sartorius AG and the Group Management Report for fiscal 2021 are combined. The HGB annual financial statements of Sartorius AG and the combined management report are published simultaneously in the German Federal Gazette (Bundesanzeiger).

Business Operations, Corporate Strategy, Corporate Management and Oversight, Overview of Business Development

Sartorius AG has exercised only the functions of the strategic, group-leading management holding entity for the Sartorius Group since the beginning of fiscal 2011, and we refer in this connection to the explanatory reports concerning business operations, corporate strategy, corporate management and oversight, as well as the overview of business development, presented on pages 24 et seq. of the combined management report of Sartorius AG and the Group.

Earnings Situation

Sales revenue of Sartorius AG essentially consists of cost transfers to affiliated companies within the Group for management services rendered as well as of the rental of buildings on Sartorius Campus.

In the prior reporting year, other operating income consisted of book profits from asset sales in the amount of €131.0 million. These resulted from the sale of shares of Sartorius Stedim Biotech as part of the acquisition of BIA Separations.

Income from investments of €46.3 million relative to €23.3 million a year ago concerns dividends paid out for the French subsidiary Sartorius Stedim Biotech S.A.

Due to profit and loss transfer agreements, Sartorius AG received a profit of €16.1 million from Sartorius Corporate Administration GmbH (2020: €4.2 million). Moreover, Sartorius Lab Holding GmbH transferred a loss of €2.5 million (2020: loss of €28.4 million). The high loss reported by Sartorius Lab Holding GmbH essentially resulted from its one-time assumption of losses recorded by Sartorius Lab Instruments GmbH & Co. KG for fiscal 2020.

Net Worth and Financial Position

The balance sheet total of Sartorius AG decreased in the reporting year by €18.3 million to €2,357.7 million.

The balance sheet structure of Sartorius AG reflects its function as the management holding entity for the Sartorius Group. Fixed assets consist essentially of financial assets and, in the reporting year, stood at €2,226.8 million (2020: €2,230.3 million). Accordingly, fixed assets accounted for 94.4% of the balance sheet total (2020: 93.9%). The equity ratio for fiscal 2021 was 14.2% relative to 14.4% in 2020.

Financing of the Sartorius Group is done centrally through Sartorius AG. Internal Group financing is provided by granting corresponding short-term and long-term loans. The long-term loans are reported in financial assets as loans to affiliated companies and remained unchanged with respect to the prior reporting year at €1,658.9 million.

Statement of Profit and Loss of Sartorius AG
Based on the total cost accounting method according to Section 275, Subsection 2, of HGB[1]

€ in K	2021	2020
1. Sales revenue	16,302	17,147
2. Other operating income	1,420	136,582
3. Employee benefits expense	-8,650	-7,601
4. Depreciation and amortization	-9,438	-6,774
5. Other operating expenses	-14,932	-13,580
6. Income from investments	46,270	23,273
7. Profit received under a profit and loss transfer agreement	16,103	4,210
8. Loss accepted under a profit and loss transfer agreement	-2,504	-28,448
9. Interest and similar income	17,889	12,950
10. Interest and similar expenses	-23,037	-21,025
11. Income tax expense	1,138	-3,827
12. Profit after tax	40,561	112,907
13. Other taxes	-88	-24
14. Net profit for the period	40,473	112,883
15. Profit brought forward	158,014	93,364
16. Retained profits incl. net profit for the period	198,487	206,247

Balance Sheet of Sartorius AG
According to HGB[1], € in K

Assets	Dec. 31, 2021	Dec. 31, 2020
A. Fixed Assets		
I. Intangible assets	18,495	24,044
II. Property, plant and equipment	105,780	107,341
III. Financial assets	2,102,558	2,098,883
	2,226,833	2,230,268
B. Current Assets		
I. Trade and other receivables	113,562	61,628
II. Cash on hand, deposits in banks	14,499	80,495
	128,061	142,123
C. Prepaid Expenses	2,809	3,644
	2,357,703	2,376,035

Equity and Liabilities	Dec. 31, 2021	Dec. 31, 2020
A. Equity		
I. Subscribed capital	74,880	74,880
Nominal value of treasury shares	-6,464	-6,464
Issued capital	68,416	68,416
II. Capital reserves	57,715	56,396
III. Earnings reserves	10,867	10,867
IV. Retained profits incl. net profit for the period	198,487	206,247
	335,485	341,926
B. Provisions	37,383	38,447
C. Liabilities	1,984,835	1,995,662
	2,357,703	2,376,035

1 HGB = German Commercial Code

Proposal for Appropriation of Profits

The Executive Board and the Supervisory Board will submit a proposal to the Annual Shareholders' Meeting to appropriate the retained profit of €198,487,285.16 reported by Sartorius AG for the year ended December 31, 2021, as follows:

in €	
Payment of a dividend of €1.25 per ordinary share	42,782,511.25
Payment of a dividend of €1.26 per preference share	43,079,214.78
Unappropriated profit carried forward	112,625,559.13
	198,487,285.16

Research and Development

Detailed information about the research and development activities of the Sartorius Group and of its divisions is given on pages 33, 58 and 63.

Employees

Sartorius AG as a holding company does not employ any staff to be disclosed pursuant to Section 285, No. 7, of HGB.

Risks and Opportunities

The opportunities and risks affecting the business development of Sartorius AG as the management holding entity are essentially equivalent to those of the Sartorius Group. Sartorius AG shares in the risks to which its investments and subsidiaries are exposed in proportion to the extent of its investment. Where expedient and feasible, we adopted countermeasures and | or arranged for balance sheet measures during the reporting year to cover all discernible risks within Sartorius AG that had the potential to negatively impact our net worth, financial position and profitability.

A detailed Opportunity and Risk Report for the Sartorius Group is provided on pages 70 to 81; a description of the internal control and risk management system, on page 87.

Forecast Report

Earnings trends for Sartorius AG depend substantially on the progress of its subsidiaries and, hence, on the Sartorius Group.

For the individual financial statements of Sartorius AG, a slightly higher annual profit is forecasted due to the expected increase in the dividend income of Sartorius Stedim Biotech S.A.

The development of the Sartorius Group's business is discussed in the Forecast Report on pages 82 to 86.

Opportunity and Risk Report

Principles

Every business activity entails opportunities and risks, which have to be managed. The skill with which this is done is a decisive success factor in determining the future development of a company's shareholder value.

The point of risk management is not to always eliminate every risk possible; rather, our approach is to intentionally take a certain measure of risk in our business activities in order to be successful in unlocking opportunities. In this endeavor, it is important to keep risks contained within acceptable limits and to control them carefully. Through appropriate guidelines, we ensure that risk assessments are taken into account in the decision-making processes from the very beginning.

At Sartorius, identification and management of opportunities and risks is a cross-functional component of Group management. To this extent, our risk management organization reflects a global functional organization in the two divisions of Bioprocess Solutions and Lab Products & Services. Individuals heading a functional area in a division in the Group companies are each responsible for their own management of opportunities and risks. The cross-divisional Finance & Controlling department is responsible for the organization of the respective reporting process, including the further development of the Group's risk management system.

Managing Opportunities

Our opportunity management centers on the analysis of target markets and sector environments, as well as the assessment of trends, both of which give strong indications as to future business opportunities. The identification of the potential for development is one of the key roles of the relevant managers and initially takes place at the local rather than the central level. Particularly the market-facing functions, such as strategic marketing and product management in each of the two divisions, play a leading role in this respect. These areas are supported by the central Business Development unit with market monitoring, data analysis and the implementation of strategic projects.

We regularly review the Group’s strategy and revise it as necessary. As part of these reviews, the members of the Executive Board regularly discuss short-, medium- and long-term opportunity potential for the various business areas with the managers having operational responsibility. If the opportunities are short-term in nature, they are considered in annual budget planning. Medium- and longer-term opportunities are tracked systematically as part of strategic planning.

As a partner to the biopharmaceutical and laboratory industries, Sartorius operates in future-oriented and high-growth sectors. The significant opportunities generated by the various market and technology trends are described in detail in the sections entitled "Sector Conditions" and "Outlook for the Sectors" on pages 35 and 83, respectively.

Our assessments rank Sartorius as one of the global market leaders in many subsegments and product areas. We believe the high quality of our products, our strong brand recognition and our established customer relationships give us a good chance to stabilize and continue extending our market leadership. The corresponding division strategies and the growth opportunities and initiatives based on them are discussed in the section on the strategy of the Bioprocess Solutions Division, which begins on page 28, and in the section on the strategy of the Lab Products & Services Division, which starts on page 29.

Risk Management

Organization

Overall responsibility for the maintenance of an effective risk management system ensuring comprehensive and consistent management of all material risks rests with the Executive Board. Coordinating and developing this system and combined risk reporting are the responsibilities of the Finance & Controlling department, while the particular functional areas are responsible for identifying and reporting individual risks, as well as for assessing their potential impact and for taking the appropriate countermeasures.

The Supervisory Board of Sartorius AG monitors the effectiveness of the risk management system, with the preparatory work being performed by the Audit Committee of this board. While carrying out their statutory audit mandate for the annual financial statements and consolidated financial statements, the independent auditors assess whether the early warning system in place is capable of prompt identification of risks that could jeopardize the future of the company. Finally, the Internal Audit Department regularly reviews the risk management process and system.

Insurance

We have taken out insurance policies to cover a wide range of risks where possible and economically advisable. These insurance policies include coverage against product liability, property damage, business interruption, transport, material and pecuniary damages and other risks, and provide comprehensive coverage for legal costs. An independent department working in conjunction with an external insurance broker regularly reviews the nature and extent of our insurance protection and makes any adjustments as necessary.

When choosing our insurers, we particularly consider the credit rating of these entities as potential contractual partners, as well as aim to achieve a high degree of diversity in order to mitigate the related risks.

Risk Management System and Risk Reporting

The risk management system of the Sartorius Group is documented in a Risk Management Handbook that applies throughout the entire Group and includes definitions of the framework, the structural organization, processes, risk reporting and monitoring and controls of the effectiveness of the risk management system. This Handbook is based as a whole on the ISO 31000 "Risk management – Guidelines" standard and the COSO standard (COSO = Committee of Sponsoring Organizations of the Treadway Commission). There are also a number of other sources that contain stipulations for handling risks, including the articles of association and rules of procedure of the Group companies and other guidelines. The strong growth of the Group over the past years and the rising demands of customers and regulators meanwhile require that we continue to adapt our guidelines and rules.

The prescribed reporting process in the risk categories subsequently described establishes the rules for the ongoing review of and information on risk situations. If any specific risks are discernible, these are documented with respect to their assessment, probability of occurrence and measures to be taken to eliminate such risks or to mitigate their impact. As a matter of policy, assessment of risks is governed by the remaining net risk, i.e., after any risk-mitigating action has been taken. In addition, as soon as these risks reach defined size criteria, they are reported to the central risk management system. The central risk management system aggregates the risk reports and provides regular reports to the Executive Board and the Supervisory Board on the risk situation of the Group. Since fiscal year 2021, regular reporting also includes the Group's risk-bearing capacity as determined on the basis of rolling liquidity planning. We have an urgent reporting procedure in place to ensure that when a new or emerging significant risk to our net worth, financial position and profitability is identified, the Executive Board of Sartorius AG receives all of the necessary details without delay.

In order to provide a logical structure, we defined four main risk categories: external risks, operating risks, financial risks and compliance risks. Each main category is divided into several subcategories that are described in the following sections.

Moreover, we have defined a so-called risk matrix that categorizes the probability of occurrence and potential impact on the net profit into specific classes as follows:

Probability of Occurrence	
Remote	< 10%
Possible	10% - 50%
Probable	50% – 75%
Very likely	> 75%

Significance

in millions of €	Impact on Earnings
Insignificant	< 10
Moderate	10 – 50
Significant	50 – 100
Critical	> 100

These two elements are combined to form the following matrix that indicates the importance of the individual risks for the Group:

> 75%	Low	Medium	High	High
50% – 75%	Low	Medium	Medium	High
10% – 50%	Low	Medium	Medium	Medium
< 10%	Low	Low	Medium	Medium
Probability of occurrence | Impact	< €10 million	€10 – €50 million	€50 – €100 million	> €100 million

External Risks

General Risks

In principle, our ability to foresee and mitigate the direct and indirect effects of risks entailed by life in general is limited. Such risks include natural catastrophes, pandemics or force majeure, and their associated damage to commercially significant and critical infrastructure and currency or monetary crises. Yet we proactively take measures, whenever feasible, to ensure that we can respond appropriately and at short notice or are insured against any damage entailed by such risks.

The coronavirus pandemic and the extensive measures to contain it led to a global recession in 2020. The global economy was largely able to recover from this during the reporting year, although the upturn has not extended evenly to all regions and sectors and has to some extent been curbed by supply chain problems and prices of raw materials. The pharma and biotech industry, which is almost independent of economic fluctuations, developed robustly overall in this environment. The sector also played a key role in managing the crisis as a result of its role in developing and manufacturing vaccines and therapeutics, and certain manufacturers invested significantly in building up corresponding production capacity. As one of the leading bioprocess technology providers, Sartorius benefited from this development and reported additional revenue again in the reporting year, particularly in connection with the development and production of coronavirus vaccines and test procedures.

Travel and contact restrictions due to the pandemic continue to impact direct sales in 2021. The changing requirements for interaction with customers were met, among other things, by increasing the use of video conferencing and other digital communication tools, including augmented reality. Supply chains have proven to be largely stable despite the restrictions on global logistics. However, our lead times for certain products have increased due to the fraught supply situation for some of the components and services we need to procure.

We currently expect the additional demand arising from the coronavirus pandemic to continue for some time as a result of the need for booster shots and the expansion of vaccination campaigns to countries that previously had little access to vaccines. As the coronavirus pandemic persists, negative consequences for the future cannot be ruled out. However, it should be noted that the sector’s focus on vaccines and therapeutics for the coronavirus will be at the expense of other customer projects and that the pandemic-related postponement of studies for other indications also has an adverse effect on the course of our business.

Our largest sites in Germany and France do not face any major risks from natural catastrophes, while, for example, our production plants in Puerto Rico and in Fremont, California, are exposed to the risks of severe hurricanes or earthquakes and could be impacted accordingly. We endeavor to counteract this risk by applying the highest possible safety standards to the buildings and explicitly consider this risk in our warehousing and international production network strategies.

Furthermore, political developments such as changes in the foreign trade policy of various countries, such as the USA and China, can have an impact on the Group’s business.

In the U.K., the Group operates several manufacturing and sales entities accounting for a significant business volume. Any developments that have a negative impact on trade between the U.K. and other countries, such as the introduction of customs duties could therefore result in a corresponding decrease in Group's earnings. To date there have been no substantial negative effects from Great Britain’s exit from the European Union (“Brexit”), but further developments are being closely observed, and some measures to reduce risks have already been taken, such as maintaining safety stock.

Since our Group companies operate globally and have international interdependencies, punitive tariffs and trade conflicts can have negative effects on our business activities. To reduce any possible impacts, various measures are currently being reviewed, such as an extension of our supplier network.

Business Cycle Risks

Owing to the concentration of its business activities in the life science sector, the effect of general economic developments on Sartorius is lower than average. The Bioprocess Solutions Division focuses on the biopharmaceutical industry, which is largely independent of economic cycles. In contrast, the Lab Products & Services Division is partly susceptible to business cycles that can pose a risk to its growth. Our strategy of also aligning the Lab Products & Services Division more strongly with the biopharma sector reduces these risks.

Operating Risks and Opportunities

Our supply chain extends from procurement to production to sales and distribution. Problems within this workflow can have consequential effects, including delays in deliveries. The supply chain management system we have instituted throughout our value-added chain to prevent such problems largely minimizes the associated risks by analyzing and controlling all operations involved. On the other hand, the strongly international alignment of our organization opens up a whole series of opportunities. The various risks and opportunities encountered within our supply chain are explained in detail below.

Procurement Risks and Opportunities

We purchase a wide range of raw materials, components, parts and services from suppliers and are consequently exposed to the risks of unexpected delivery bottlenecks and | or price increases.

Over the past years, we have implemented powerful tools and robust processes within the regular operating rhythm in our Supplier Management to manage supply risks and ensure supply continuity. Important measures in this respect are to maintain safety stock and to define alternative materials and suppliers. In addition, we conduct regular supplier reviews and carefully monitor the delivery status and inventory coverage of critical raw materials.

We actively mitigate procurement risks arising from the current raw material shortages in the market. By concluding binding purchase agreements with our suppliers and/or by seeking alternatives within our supplier network, we reduce their impact and secure continuous supply.

Opportunities can arise in the area of procurement when our growth enables us to increase order quantities and thereby strengthen our position with our suppliers, such as by receiving price discounts or preferential treatment.

Production Risks and Opportunities

Based on our core technology expertise, we ourselves manufacture a significant proportion of the products that involve a high level of vertical integration. Examples include filters and laboratory balances. Other products, such as reusable fermenters and bioreactors, are manufactured in collaboration with suppliers so that some of the production risks are transferred to external third parties. Where we manufacture products ourselves, we also bear the associated risks of capacity bottlenecks or overcapacity, production downtimes, excessive reject rates and high levels of tied-up working capital, as well as dependency on individual manufacturing sites.

We contain these risks by planning production capacities carefully, using versatile machines, semi-automated individual workstations and flextime work schedules, and by continuously monitoring production processes. Moreover, our global manufacturing network enables us to compensate for any capacity bottlenecks by shifting production to other regional plants and to limit our dependency on individual local manufacturing sites. Furthermore, we have taken out policies for business interruption insurance to compensate for any possible losses due to production downtimes.

Some of our production processes use mildly flammable or explosive materials. The improper handling of such materials can result in significant damage to property and business interruptions. We have taken all necessary organizational and structural measures at the affected locations to mitigate this risk as much as possible.

We consider it an opportunity that our investments in infrastructure and production resources, among other things, have given us high flexibility in our manufacturing operations and that we are capable of meeting our customers' requirements and regulatory standards with respect to business continuity concepts. In addition, this approach ensures that our international production sites can concentrate on specific manufacturing technologies, leveraging regional cost advantages as a result. Continuous improvements in production, such as simplifying processes, increasing levels of automation and digitizing the core drives, manufacturing and logistics efficiency even higher.

Sales and Distribution Risks and Opportunities

We use a variety of channels to sell and distribute our products around the world. The potential risks entailed are unexpected changes in the demand structure, growing price pressure and non-compliance with supply agreements concluded with customers. We employ targeted market analyses to identify emerging demand trends in individual segments early on so that we have time to respond appropriately. Our technical innovations and the fact that a large number of our products are used in validated production processes in the biopharmaceutical industry reduce our exposure to the risk of growing price pressure. We have minimized our risk exposure in the area of logistics in recent years by setting up and using central warehouses to optimize distribution logistics.

Opportunities arise in the area of sales and distribution when the increasing breadth of our product range – in both the bioprocess and lab segments – puts us in a position to sell new products to existing customers. Moreover, our business relationships, most of which are established for the long term, and our global presence provide opportunities. Finally, through our acquisitions in cell analysis, we offer customers in the biopharmaceutical industry, a key sector for us, comprehensive product solutions to address needs ranging from research laboratories all the way to production processes.

Sartorius sources its key customers from the pharmaceutical, chemical and food industries and from research and educational institutions of the public sector. These customers are usually relatively large organizations that have been in existence for some time and have strong credit ratings. Most of our business areas have a highly diversified customer base so the Group as a whole is not dependent on individual key accounts to any significant degree.

Competitive Risks and Opportunities

Sartorius has a leading competitive position in its core technologies and competes with mainly larger rivals sharing our status as a globally operating company. As we serve a large number of customers from highly regulated sectors like the pharmaceutical and food industries, and the technology barriers to market entry are fairly high, we regard the probability of new competitors emerging within the short term as relatively low.

The fact that many of our products are used in validated processes, especially those in the biopharmaceutical industry, reduces the risk of losing significant market share within a short timeframe. Conversely, the hurdles faced by Sartorius in winning clients from our competitors in this industry are also higher.

Changes in the competitive environment, for example, further consolidation in the markets, can pose further risks but also opportunities. Sartorius has been continuously making acquisitions in recent years, thus further strengthening its market position and opening up new potential synergies.

Quality Risks and Opportunities

Our customers use Sartorius products in a wide range of critical production processes, including the manufacture of medications, foods and chemicals, and in research and development laboratories. The main risk encountered in these areas is non-compliance with specified quality criteria, impacting the performance of our products, which - in worse case - can lead to losses for our customers, or their customers for which we may be made liable through compensation claims.

We employ rigorous quality checks and advanced production methods and processes, such as cleanroom technology, to ensure that our products satisfy the most stringent quality standards and high regulatory requirements. These manufacturing methods and processes are subject to constant review under our continual improvement processes, moreover, and are optimized as requirements evolve. Quality control tests are implemented through, in-process control tests and test procedures of final products to ensure that critical or essential product properties are continuously met. A rigid product release process ensures, that only products will be shipped that are in compliance with the agreed specifications.

The effectiveness of our quality system is confirmed through the successful completion of regular audits by customers as much as through implementation of certified quality systems compliant with ISO 9001 and, where applicable, with ISO 13485 documenting the high level of quality achieved in Sartorius products and processes. Irrespective of these measures, we also maintain significant insurance coverage against product liability risks.

In addition, Sartorius has established a traceability system that enables us to efficiently identify and if required recall an entire production batch immediately. This minimizes the consequences in the event that a defect or non-conforming item is discovered in a product and ensures compliance to regulations. We have also installed a complaints management system to deal with customer requests promptly and to ensure efficient documentation.

In the sectors we address, quality requirements are growing more and more stringent all the time, not least as a result of increasing requirements on protection of medical patients and on product safety by regulatory authorities. There is a risk that new regulations may be overlooked or be difficult to implement. For Sartorius, this also unlocks opportunities by putting up further barriers to entry for potential market players. The reason is that challenging quality demands represent a considerable barrier to entry for potential new competitors and provide stimulus for further technical innovation. Moreover, through our work on professional committees, membership in industry associations and standards committees, we actively take part in drafting new standards and guidelines, and are able to identify these emerging requirements at an early stage and prepare ourselves accordingly.

Research and Development Risks and Opportunities

We devote a considerable share of our resources to research and development. Potential risks in this area may arise from development results that diverge from market needs or application requirements and from exceeding planned development deadlines and budgets. Our approach into trend monitoring as well as early stage proof of concept activities to de-risk the product developments as well as the project management, intensive R&D controlling and early involvement of our customers in the development process substantially limit these R&D risks. In particular, we ensure that proof of concepts and product designs are always reviewed promptly with regard to how well they meet customers' needs so products can be adapted accordingly as required. The continuous tracking of the technology trends and competitor activities together with an early stage patent filing ensure our technology and marketing position.

Not least, our intensive collaboration with partners that rank among the global market and opinion leaders in their own fields opens up the opportunity for us to jointly develop products with an especially high level of innovation. In areas such as membrane technology and plastics technology, sensorics and biopharmaceutical process engineering, and analytic technologies for laboratory applications, the expertise of our own specialists puts us worldwide at the very forefront of global research and development, presenting us with an opportunity to turn this technical knowledge into potential sales and an even stronger position on the market. The combination of different innovative activities in a separate Corporate Research Department enables us to identify promising developments at universities, startups and at our customers' plants and ensure the all relevant IP positions are secured in advance.

Acquisition Risks and Opportunities

By nature, acquisitions provide many opportunities, such as sales growth, extension of our product portfolio and development of new markets. By contrast, the purchase and sale of companies or parts of companies entail a number of typical risks, such as incorrect valuation assumptions or insufficient usage of anticipated synergy effects.

We take various measures to reduce these risks. These include performing a thorough due diligence review of important areas and carrying out comprehensive analysis of the market concerned. In addition, we involve external consultants and experts in the purchase or sales process as required. We especially focus on drafting transaction contracts so that they adequately counter such risks, especially by clauses assuring specific characteristics or by contractual warranty or guarantee provisions, as well as agreements on mechanisms for adjustment of the purchase price and on liability clauses. Appropriate insurance policies are taken out when necessary. Immediately after an acquisition has taken place, an integration phase is initiated in which any potential risks can likewise be detected as early as possible and prevented or minimized by taking the appropriate counteractions. A Post Merger Integration (PMI) Office was established as an independent function in the Business Process Management Department to ensure the efficiency of the integration process and minimization of the associated risks.

Personnel Risks and Opportunities

As an innovative technology group, Sartorius employs a large percentage of highly qualified people. This entails the risk that Sartorius may not be able to hire sufficient numbers of highly qualified employees in the future or may lose high performers currently at the company. The strong growth of the Group and the associated expansion of its workforce moreover pose sizable challenges for the integration and familiarization of new employees, and thus also harbor risks.

We therefore aim to keep key employees for the long term by offering performance-related remuneration models, targeted continuing professional development options, attractive social benefits and interesting people development opportunities. In connection with this, we have, in particular, enhanced our staff development initiatives and management programs. The success of these measures is apparent in the low attrition rates of past years. Employment contracts in certain cases contain a clause prohibiting any move to a direct competitor.

We counter demographic change primarily by offering continuous education and training for junior staff members. This, in turn, results in opportunities for Sartorius as we can further qualify employees on our own and retain such staff over the long term, thus covering company needs for qualified personnel particularly well.

In order to ensure the seamless onboarding of the large number of new staff and also proper knowledge transfer, we have improved and expanded our initial training processes. We also use a digital HR platform, which supports secure and stable processes and enables decisions to be made on the basis of high quality data.

IT Risks and Opportunities

The Sartorius Group's business processes are supported by a wide array of specific software applications and IT systems. A failure or significant impairment of the business-critical IT systems and the supporting technical infrastructure due to cyber-attacks or other threats, could significantly hamper the smooth functioning of the company's business processes and lead to manipulation or the uncontrolled loss or outflow of data.

We are reducing these risks by continuously investing in the implementation and operation of secure IT systems and applications and by continually developing and applying our concepts and security measures on the basis of the international ISO 27001 Standard for Information Security Management Systems, among others. In addition, we incorporate the results of regular audits and vulnerability assessments by external companies specializing in IT security.

The protection of our data, systems, and applications from misuse is managed through a unified risk management framework on a group basis, established through the governance structure and IT risk management, and implemented through applicable policies and effective communications and practices. Fundamental principles such as secure configuration, user training and security awareness, network security, malware prevention, privilege management, and incident response are fundamental to our security organization and procedures.

We continue to expect the threat of cyber-attacks to increase worldwide, both in number and intensity. That is why we have again stepped up our measures and activities this year. We have strengthened the Group-wide IT security organization in terms of personnel and expertise, established a round-the-clock security control and defense team, and set up further systems and services to monitor, detect and defend against cyber-attacks.

We actively provide targeted information across the Group on potential cyber threats and risks, and engage employees by giving them simple but effective ways to defend themselves in a decentralized manner and report suspicious incidents to IT department for review.

Financial Risks and Opportunities

The global nature of the Sartorius Group's operations entails that its business activities are inevitably exposed to financial risks. The most significant of these are exchange rate risks, interest rate risks, liquidity risks and tax risks. Conversely, financial risks, most notably exchange rate risks and interest rate risks, are balanced by opportunities of approximately equal magnitude.

Exchange Rate Risks and Opportunities

As a consequence of its global business activities, the Sartorius Group is exposed to risks arising from fluctuations in foreign exchange rates. Since we generate around two thirds of consolidated sales revenue in foreign currencies and, in turn, approximately two thirds of this total revenue in U.S. dollars or in currencies pegged to the U.S. dollar, we are positively or negatively impacted by currency effects when converting the currencies of balance sheet items and profit or loss items, respectively. Other currencies relevant to the Sartorius Group are the British pound, the Singapore dollar, the South Korean won, the Japanese yen, Chinese renminbi and the Swiss franc.

Our global production network enables us to offset the majority of sales revenues generated in foreign currencies within the Group against costs likewise incurred in foreign currency. For example, we manufacture many of our products for the North American market locally, and are not disadvantaged on the cost side in competing with our U.S. rivals, insofar as this risk is concerned.

We continuously calculate our risk exposure with a cash flow at-risk model in order to evaluate and steer the remaining risk based on the expected net exposure for the next 12 months and take into consideration hedging transactions already executed. This is the basis we use to decide on whether to employ additional derivative financial instruments, especially spot, forward and swap transactions, to adjust for maximum loss.

Interest Rate Risks and Opportunities

We have concluded fixed interest agreements for more than 80% of our loans outstanding so that any changes in the interest rate will not have any meaningful effects on consolidated earnings. The remaining portion of the financial instruments outstanding on the reporting date is subject to variable interest rates based on the market rate. We monitor interest rate trends and our interest rate exposure constantly and arrange for hedging transactions where we consider it necessary and economically advisable to do so for individual loans. As of 12/31/2021, we did not have any interest rate derivatives in our portfolio of financial instruments.

Liquidity Risks and Opportunities

The Sartorius Group actively manages liquidity centrally in order to minimize liquidity risks in the individual Group companies on the one hand and to optimize liquidity management within the Group on the other hand. For this purpose, we use various long- and short-term financial instruments. Regarding the maturities of our loans, we make it a policy to take a risk-averse approach.

For short-term liquidity procurement, we also employ various instruments. In addition to the syndicated credit line that can be accessed and repaid at short notice, we have a number of bilateral credit lines in place on a smaller scale for individual Group companies. Furthermore, we use cash pooling agreements between selected Group companies as the primary instrument for managing liquidity within the Group.

Tax Risks

The Sartorius Group and its subsidiaries do business across the globe and are therefore subject to the tax laws and regimes of various countries. Changes in tax laws, rulings by the courts and interpretation of the law by the fiscal authorities or courts in these countries can result in additional tax expenses and payments and thus also affect the corresponding tax items in the statements of financial position and profit or loss.

We manage the resulting risks by continually monitoring and analyzing tax conditions along with our central Tax department with the support of third-party consultants in the respective countries.

Compliance Risks

Regulatory Risks

Our role as a partner of the biopharmaceutical industry and healthcare providers means that Sartorius can also be affected by underlying developments in these areas. In this context, the principle source of risk is the possibility that regulatory authorities, such as the U.S. Food and Drug Administration (FDA), the European Medicines Agency (EMA) and the Chinese National Medical Products Administration (NMPA), might adopt a more restrictive approach to the approval of new medications or the medical devices of our customers. In addition, adherence to the regulations of other relevant authorities like the Environmental Protection Agency or the Department of Agriculture in the USA is important to contain local or global regulatory risks.

Such a move would reduce the number of new pharmaceutical products to be marketed and would consequently downgrade future prospects for Sartorius over the medium term.

Environmental Risks

Sartorius has set up a cross-divisional environmental management system for managing environmental issues and mitigating risk. In addition, most of the large production sites have been certified according to ISO 14001: 2015, including our companies in France, India, Puerto Rico, and China. At these sites, corresponding organizational units have been set up to ensure compliance with relevant legal and regulatory requirements and the continuous implementation of sustainable technical innovation to improve environmental aspects in production processes. It is important to us to incorporate environmental topics in almost all decision-making processes as early as possible. In this way, we can systematically reduce potential environmental risks and operate the business in a sustainable and environmentally friendly fashion.

Environmental and sustainability aspects are occupying an increasingly important role in many business processes for us. The aspect of environmentally sustainable business has thus become a central element of how we select suppliers. For more information on these topics, please see the non-financial Group statement.

Litigation Risks

Litigation risks for Sartorius can arise from pending or forthcoming legal disputes or from administrative proceedings. All judicial or extrajudicial disputes are attended to by the company's own attorneys and legal experts, who engage external lawyers as needed.

At present, there are no pending or discernible legal disputes or proceedings that lack any cost coverage allowances in the statement of financial position or that could have a substantial negative impact on Group.

Assessment of the Overall Risk Situation and Risk Outlook

Where feasible, we adopted countermeasures and | or made risk provisions in the balance sheet during the reporting year to cover all discernible risks within the Sartorius Group, and those of a defined probability of occurrence, that had the potential to damage our net worth, financial situation and profitability.

For the purposes of this report, we have assessed the probability of occurrence of the risks as shown below and, in the adjacent columns, classify their particular significance for the entire Group. There were no material changes in comparison with the prior year.

Risk Category	Probability of Occurrence	Significance	Total Impact
External risks			
General risks	Possible	Moderate	Medium
Business cycle risks	Possible	Moderate	Medium
Operating risks			
Procurement risks	Possible	Significant	Medium
Production risks	Possible	Significant	Medium
Sales and distribution risks	Possible	Moderate	Medium
Competitive risks	Remote	Moderate	Low
Quality risks	Remote	Significant	Medium
Research and development risks	Possible	Significant	Medium
Acquisition risks	Possible	Significant	Medium
Personnel risks	Possible	Significant	Medium
IT risks	Possible	Significant	Medium
Financial risks			
Exchange rate risks	Probable	Moderate	Medium
Interest rate risks	Probable	Insignificant	Low
Liquidity risks	Remote	Moderate	Low
Tax risks	Possible	Moderate	Medium
Compliance risks			
Regulatory risks	Possible	Significant	Medium
Environmental risks	Remote	Moderate	Low
Litigation risks	Possible	Moderate	Medium

After thorough analysis of the entire risk situation and according to our current review, there are no discernible risks at present that could jeopardize the continued existence of the Group.

Similarly, based on our current review, there are no discernible risks that could jeopardize the future existence of the Group.

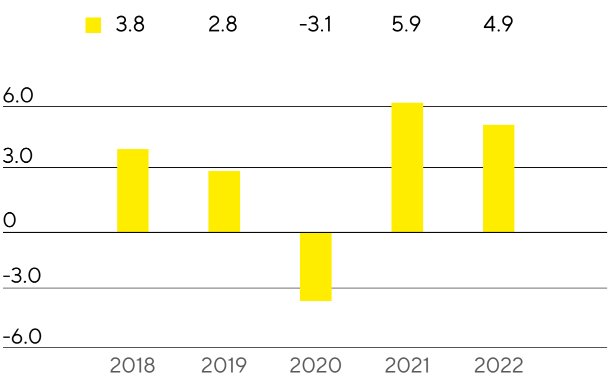
Forecast Report

Future Macroeconomic Environment

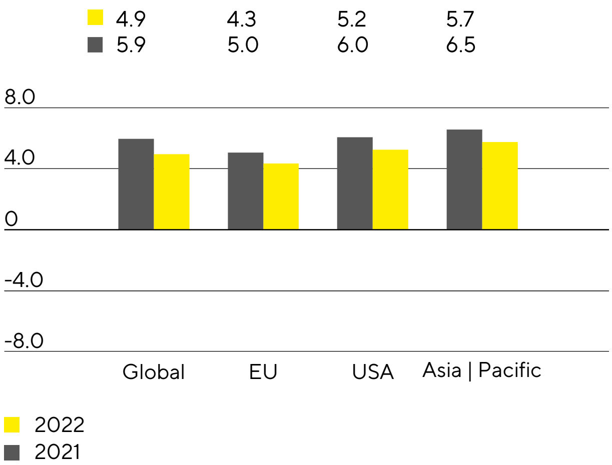
The global economy should continue its recovery in the current year according to IMF estimates. Gross domestic product (GDP) is likely to increase globally by 4.9% in 2022 (2021: +5.9%). A rise of 4.5% is expected for the industrialized countries and 5.1% for the emerging and developing countries (2021: -6.4%). In the IMF's view, progress could continue to be at different speeds, uneven, and prone to setbacks. Risks particularly stem from the infection events and possible coronavirus mutations. These could further aggravate the already strained situation in global supply chains and cause supply bottlenecks as a result of the reintroduction of containment measures. At the same time, national governments have fewer funds available for fiscal-policy support measures in view of increasing levels of debt, and central banks might scale back their currently expansionary monetary policy more than expected if rates of inflation remain persistently high.

The IMF expects growth of 4.3% for the EU in 2022 compared with 5.0% in the reporting year. Germany, Europe's largest economy, is forecasted to grow by 4.6% (2021: +3.1%) and GDP is also expected to further increase in other European economies important to Sartorius, such as France (2022: +3.9%; 2021: +6.3%) and the U.K. (2022: +5.0%; 2021: +6.8%).

Global Development GDP
in %



Gross Domestic Product by Region
in %



Source: International Monetary Fund

The United States is projected to grow by 5.2% in 2022 compared with 6.0% during the previous year, according to latest estimates. The development is supported by American companies' high willingness to invest and by robust U.S. consumption in view of good labor market data. Risks arise from a further worsening of the labor shortage, among other things. A particular focus in the current year is on the central bank's monetary policy: The Federal Reserve is likely to further scale back its bond purchases and could raise the base rate.

The Asia-Pacific economic area is likely to grow by about 5.7% this year (2021: +6.5%), with growth expected to be generated by the expanding economies of China and India in particular. According to the IMF's forecast, GDP in China is projected to increase by 5.6% (2021: +8.0%) and a significant rise of 8.5% (2021: +9.5%) is expected in India. Other countries important for Sartorius in this region should also continue their growth trajectory. An increase of 3.3% (2021: +4.3%) is forecast for South Korea, and growth of 3.2% (2021: +2.4%) is forecast for Japan.

Exchange and Interest Rate Trends

Experts predict that the base interest rates in the eurozone will remain unchanged at a low level in 2022 as well. However, the Federal Reserve is expected to raise the base rate slightly.

The market consensus on the exchange rate of the euro to the U.S. dollar for the course of 2022 is that it will range between 1.10 euros to the U.S. dollar and 1.23 euros to the U.S. dollar.

Sources: International Monetary Fund, World Economic Outlook, October 2021; Bloomberg L.P., January 2022.

Outlook for the Sectors

Biopharmaceutical Industry Maintains Dynamic Growth

Strong, long-term trends drive growth in the pharmaceutical industry, which is almost entirely independent of business cycles. EvaluatePharma estimates that the global pharmaceutical market will grow by around 6% annually for the period up to 2026. Within the pharmaceutical market, the biopharma segment has been enjoying particularly strong performance for years and will continue to outperform the market according to various forecasts. For the period up to 2026, the compound annual growth rate is projected at about 8% to 11%. This would equate to an increase in market volume to more than €520 billion. The share of biological medications and vaccines in the total revenue generated by the global pharmaceutical market is forecasted to rise from 34% to 37% in this period.

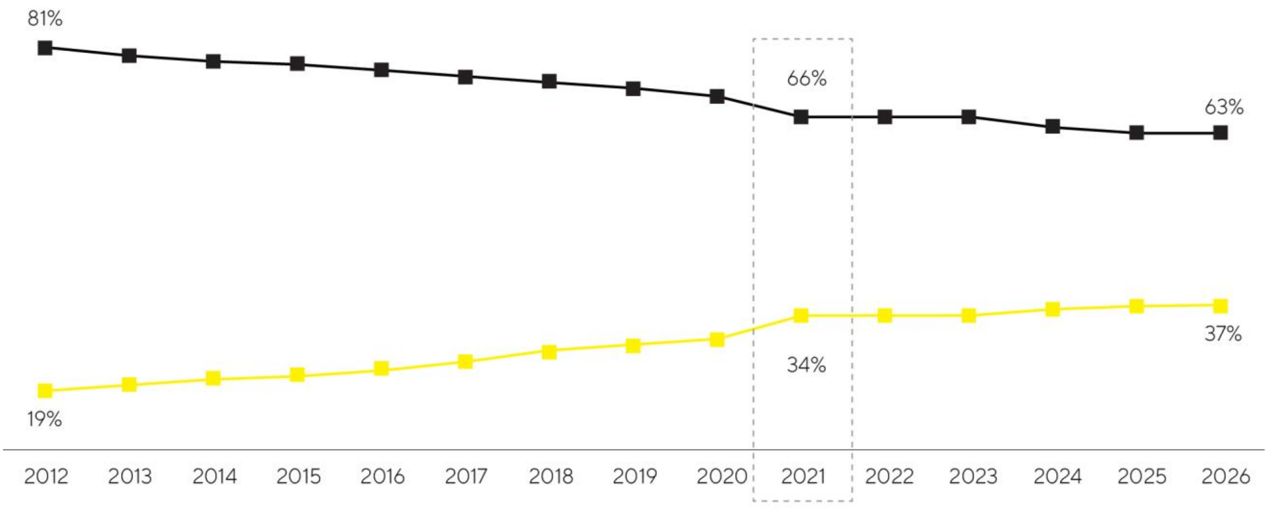
Revenues from the currently approved coronavirus vaccines and Covid-19 therapeutics are likely to reach approximately the prior year's level in 2022 and then fall in subsequent years according to one data analytics company. For 2022, the leading manufacturers of bioprocessing technology also expect pandemic-related business at approximately the same level as the prior year. Due to the exceptionally strong growth in the reporting period and the resulting high basis for comparison, the rates of increase are, however, likely to be lower. Delayed approval of new drugs as a result of the interruption of clinical trials as well as possible normalization of the inventory coverage of some biopharma companies could have a dampening effect on further growth in the next few years.

Regionally, the most dynamic market will likely continue to be China. Positive regulatory and political conditions, a constantly rising number of local biotech companies and increasing demand for advanced biopharmaceuticals have been fueling above-average growth for several years now. This trend could continue as a result of the huge amount of catch-up potential in the market and the improved availability of biotech medications. Considerable growth in the United States and Europe is also anticipated, driven in particular by a growing need for medications for aging societies as well as the rising number of patients. In addition, more and more medications are being approved. For example, biopharmaceuticals are increasingly being used in yet-to-be fully explored therapeutic areas and in the treatment of rare diseases that have so far been incurable. The pharma industry is increasingly concentrating on advanced therapies such as cell and gene therapeutics or biotechnologically processed tissue products. At the end of 2021, approximately 1,000 such compounds were in clinical development, so this area offers significant growth potential over the mid to long term. Innovative types of therapy for regenerative medicine and new substance classes, such as antibody-drug conjugates (ADCs) or mRNA-based drugs, are increasing the number and range of approved biopharmaceuticals in the long term and necessitating investments in innovative production technologies. As a result, they are key growth drivers.

This relatively young biopharmaceuticals segment is driving sector growth with its high innovative power, as reflected in the strong research and development pipelines. Of the estimated 10,000+ medications in R&D pipelines, over 40% are based on biological manufacturing processes. These include more than 1,700 biosimilars and biobetters, which are generic versions of reference biologics with comparable or better efficacy or fewer side effects than the original compounds.

Biosimilars are contributing increasingly to the growth of the biotechnology market. Current estimates indicate that by 2025, the market could grow by an annual average of 32% and reach a volume of around €41.5 billion. The significantly lower prices of biosimilars, particularly in emerging and developing countries, are creating new, affordable therapy options and are projected to result in increased demand and rising production volume. The development of national production capacities to meet the growing demand for medications is receiving political support in these countries and is fueling the establishment of local biotech companies. The biosimilars market in industrialized countries is also likely to expand considerably in the coming years due to the expiration of patents for high-selling biopharmaceuticals and an increasing number of approved biosimilars. While such generic medications have been widely used in Europe for many years and have been able to gain significant market share in some areas, progress in the USA has been rather slow until now due to regulatory, patent-law-related, and marketing hurdles. In the next few years, however, the development of increasing usage of biosimilars is likely to accelerate. Further market penetration of biosimilars could thus more than triple sales volume by 2025.

Biopharmaceuticals Are Gaining Importance – Growing Share of Sales in the Global Pharmaceutical Market



Source: EvaluatePharma, July 2021

The biopharmaceutical industry must meet growing demand for medications while producing an increasing number of approved medications and ensuring new types of therapy. For these reasons, industry observers expect that worldwide bioreactor capacities will continue to expand in the years to come. At the same time, the industry faces rising cost pressure. This increases the significance of innovations for boosting flexibility and efficiency in biopharmaceutical research and production. In the future, the biopharmaceutical market will shift away from a low number of especially high-selling medications that account for a majority of total production volume towards an expanding range of products for smaller groups of patients. Technological progress leads to ongoing improvements in the productivity of biopharmaceutical production processes. Therefore, according to the research and consulting institute BioPlan, many manufacturers will likely rely increasingly on flexibly usable single-use technologies for the commercial production of many new medications. Particularly in the case of relatively small batches, single-use technologies already ensure more cost-effective production than conventional stainless-steel units and have a better environmental footprint. To master these challenges, more and more pharmaceutical companies are relying on digitalization and automation as well as innovative software solutions for controlling and optimizing their processes. A further trend is process intensification in which several process steps, called unit operations, are interconnected and a smooth transition is created, among other things, enabling greater product quantities to be manufactured faster while achieving higher quality.

Further Growth Expected in the Laboratory Market

Various market observers expect the market for laboratory instruments and consumables to grow by about 4% to 5% annually in the next few years and to reach a volume of around €71 billion in 2024. The sector is also expected to grow in the current year, but at a lower rate of increase than in 2021 due to high prior-year comparables. The demand for certain product groups, which was particularly high in the reporting year in connection with coronavirus test kits, is expected to decline in 2022.

Regarding end markets, the greatest dynamics will probably continue to be generated by the pharmaceutical and biopharma industries, in particular, as a result of continuous research into and approval of new medications, the high momentum of scientific and technological innovations, and strong growth in China. For instance, EvaluatePharma expects sector-specific research spending to climb annually by 4.2% during the period from 2021 to 2026. According to market studies, the product area of bioanalytical instruments should particularly benefit from this and further grow at an above-average rate within the laboratory market.

Budget increases for academic and public-sector research institutions should also act as a growth driver in some countries. On the other hand, the pandemic and potential lockdowns or temporary production shutdowns and any unexpected slowdown in global economic growth still pose risks to demand from industrial end markets. Market observers continue to expect Asian countries such as China and India to generate the highest growth rates. Stricter regulatory requirements in a range of industries are also stimulating increased demand for instruments used in sample analysis and quality control. In addition, investments in laboratory infrastructure are becoming more attractive, especially in China, as a result of government-supported efforts to promote innovativeness in several key industries. The country invested more in research and development than the USA for the first time in 2021, as a result of which its share of R&D spending further increased.

Sources: BioPlan: 18th Annual Report and Survey of Biopharmaceutical Manufacturing Capacity and Production; IQVIA Institute: Global Medicine Spending and Usage Trends, April 2021; EvaluatePharma: World Preview 2021, Outlook to 2026, July 2021; SDi: Global Assessment Report 2020, June 2021; www.fda.gov

Outlook for 2022

Sartorius expects dynamic performance in 2022 as well, with consolidated sales revenue projected to increase by 15% to 19%. The acquisitions closed or agreed upon in 2021 are forecasted to contribute about 2 percentage points of non-organic growth to this increase. Following the jump in profitability in 2021, the company expects its underlying EBITDA margin to reach a figure at the high prior-year level of about 34%.

Regarding pandemic-related business, company management projects sales revenue for 2022 at the previous year's level of around €500 million.

For the Bioprocess Solutions Division, management forecasts sales revenue growth of about 17% to 21% and an underlying EBITDA margin of around 36%. Lab Products & Services is projected to achieve revenue growth of about 6% to 10% and an underlying EBITDA margin of about 26%. For Bioprocess Solutions, Sartorius expects that acquisitions will contribute non-organic growth of about 2 percentage points; for Lab Products & Services, about 1 percentage point.

The margin targets include expenses for measures to reduce the company's CO_2 emission intensity; these expenses will account for about 0.5% of consolidated sales revenue in 2022.

Against the backdrop of strong organic growth, Sartorius is currently expanding its capacities considerably in all regions. Accordingly, capital expenditures in relation to sales revenue, the CAPEX ratio, is estimated to be about 14%.

The ratio of net debt to underlying EBITDA is expected to be about 1.1 at year-end. Possible further acquisitions are not included in these projections.

All forecasted figures are based on constant currencies, as in the past years. In addition, this guidance assumes that the global economy as well as supply chains will remain stable.

Description of the Key Features of the Internal Control System

In relation to the Group Accounting Process (Section 289, Subsection 4, and Section 315, Subsection 4, of the German Commercial Code [HGB])

Definitions and Elements of the Internal Control System at the Sartorius Group

The internal control system (ICS) of Sartorius AG and the Sartorius Group encompasses all of the principles, procedures and measures adopted to ensure the organizational implementation of management decisions. The main priority of the system as it relates to Sartorius AG's and the Group's accounting process is to verify that accounting is effective, cost efficient and formally correct and that it complies with the pertinent legal provisions.

The internal control system of Sartorius AG and of the Sartorius Group consists of a combination of process-integrated and non-process-integrated monitoring measures. The process-integrated safeguarding measures are organizational measures, on the one hand, and control measures, on the other. The Supervisory Board, specifically in this case the Audit Committee of Sartorius AG, and the Legal Affairs & Compliance unit with its Group Auditing department are involved in the Sartorius Group's internal control system through their non-process-integrated audit activities. The Audit Committee regularly reviews quarterly reports in addition to the annual financial statements of the parent corporation and the consolidated annual financial statements.

Moreover, to ensure systematic, early identification of risks across the entire Group, a "monitoring system for early group-wide detection of risks with the potential to jeopardize the company's continued existence" as defined in Section 91, Subsection 2, of the German Stock Corporation Law (AktG) is in place at the Sartorius Group. The efficacy of the early risk detection system, which the Sartorius Group adapts promptly in response to any relevant changes in circumstances, is assessed by the independent auditors of Sartorius AG in accordance with Section 317, Subsection 4, of the German Commercial Code (HGB). An integral component of this system is also operational risk management, which involves activities such as the transfer of risk to insurance companies through coverage for damage and liability risks, and the arrangement of suitable hedges to limit currency risks and interest rate risks.

Organizational Measures

Accounting processes are strictly organized according to the principle of segregation of functions and comply with the "four-eyes" principle – i.e., review by at least two individuals, also referred to as the dual-review or multiple-review principle. Duties and responsibilities are clearly assigned to different specialized departments and companies. The separation of administrative, executive, settlement, and approval functions reduces the possibility of fraud. It also continues to play a significant role in ensuring that any possible errors are discovered early and any potential misconduct is prevented.

The IT applications used in the company's accounting processes have access restrictions, which allow only authorized persons to have controlled access to the accounting system and data. Each access right is assigned specifically according to the tasks to be performed and is subject to annual review. Furthermore, the dual-review principle is also applied in IT process design and the assignment of access rights.

Start

In addition, defined written local and global operating procedures exist, particularly the Group accounting guidelines, which are regularly updated and communicated throughout the Group. The scope of regulation at Group level also extends to the central definition of measurement rules and parameters, among other factors. Additional data for the presentation of external information in the notes to the financial statements and in the Group management report is also prepared and aggregated at Group level.

Continuous coordination of internal accounting during the year for planning and control with external accounting contributes significantly to the quality of Group financial reporting. Reporting itself is done through a standardized reporting system implemented throughout the Group. This system visualizes all consolidation processes. Internal controls, on the one hand, and the Group auditors of Sartorius AG, on the other hand, ensure that Group financial reports are accurately generated from the consolidated Group companies' financial statements.

The employees involved in the accounting process meet qualitative standards and receive regular training. The Group Financial Reporting department assists the local units in resolving complex accounting issues, such as measuring fair value, to ensure consistent and accurate reporting in the consolidated financial statements. Complex evaluations, such as actuarial calculations and company valuations or purchase price allocations, are assigned to specialized service providers who involve the respectively qualified in-house staff.

Control Measures

Comprehensive control activities are performed by managers and staff to ensure effective and reliable accounting. As a result, this ensures compliance with legal requirements and internal guidelines as well as properly conducted business transactions. Examples of such control activities include the analysis of situations and developments with reference to specific key indicators. Moreover, every month individual reporting units comment on and explain special characteristics or variances using Group-wide standardized analytical tools as the basis. Further specific control activities performed to ensure effective and reliable Group accounting encompass the analysis and, where applicable, correction of the individual financial statements submitted by the Sartorius Group companies. A large number of control mechanisms already incorporated into the consolidated reporting system enable erroneous information to be identified and corrected at Group level. Impairment tests are conducted centrally for assets and/or cash-generating units considered material from the Group's perspective in order to ensure that consistent, standardized evaluation criteria are applied.

The Legal Affairs & Compliance unit annually draws up a risk-based audit plan and reviews in spot checks whether basic legal requirements and internal group guidelines are complied with for the entire control and risk management system of the Group. This monitoring function covers, in particular, audits of the functional efficiency and effectiveness of defined control measures. The results of these audits are reported directly to the audited departments and units, making it possible to efficiently remedy any identified deficiencies and to further enhance the company’s internal control system (ICS). The Executive Board and the Supervisory Board regularly receive reports on audit activities.

A manual on the company's internal control system that focuses on the business processes of our company further contributes toward strengthening our ICS. This manual combines all ICS-relevant requirements that we consider of material importance into one standardized document and will be supplemented by further appropriate rules as necessary.

Qualifying Statements

The internal control and risk management system enables the complete recording, processing, and evaluation of company-related matters on the basis of the organizational, control, and monitoring structures defined in the

Sartorius Group, as well as their accurate presentation in Group accounting. Yet it must be considered that an internal control system, regardless of its design, cannot guarantee absolute certainty with regard to the correct and complete recording of facts in the consolidated financial statements.

The statements made relate solely to the subsidiaries included in the consolidated financial statements of Sartorius AG, provided that this parent company has direct or indirect control over such subsidiaries within the meaning of the international accounting standards.

Explanatory Report of the Executive Board On the Disclosures Pursuant to Section 289a and Section 315a of the German Commercial Code (HGB)

Composition of the Issued Capital | Limitations to Voting Rights

Sartorius AG's capital stock totals €74,880,000. It comprises 74,880,000 no par value individual bearer shares, 37,440,000 of which are ordinary shares and 37,440,000 of which are non-voting preference shares. Each share certificate represents a calculated proportion of €1 of the issued capital.

The rights and obligations associated with these shares are governed by the provisions of the German Stock Corporation Law (Aktiengesetz, abbreviated "AktG"). According to the company's Articles of Association, preference shares are entitled to a dividend payment that is one euro cent higher per share than that for ordinary shares. However, this entitlement to receive dividends shall be at least two euro cents per preference share. Apart from the cases provided for in Sections 140 and 141 of AktG, preference shares are non-voting. Beyond this, preference shares grant all other rights to which every shareholder is entitled.

The company holds 3,213,991 ordinary shares and 3,250,147 preference shares; these do not entitle the company to any membership rights.

Direct or Indirect Equity Ownership Exceeding 10% of Voting Rights

According to voting rights notifications, the community of heirs of Horst Sartorius holds 18,754,160 ordinary shares of Sartorius AG (around 50.1% of all ordinary shares issued or around 54.8% of all ordinary shares outstanding) and thus more than 50% of the voting rights in the company or around 25.0% of the total capital stock of Sartorius AG. The members of this community of heirs are currently the following: Ulrike Baro, Christine Franken, Britta Franken, Julius Franken, Carla Franken, Henri Franken, Kai Christian Franken and Karin Sartorius-Herbst, all residents of Germany; Karin Sartorius-Herbst further announced that outside of the community of heirs, she directly holds an additional 906,052 ordinary shares in the company (around 2.4% of all ordinary shares issued or around 2.6% of all ordinary shares outstanding). The decedent Horst Sartorius ordered that his will be administered by an executor. Dr. Lothar Kappich, resident of Germany, is the appointed executor of Horst Sartorius' estate and exercises the specified voting rights at his own discretion as defined by Section 34, Subsection 1, sentence 1, item no. 6, of the German Securities Trading Act (Wertpapierhandelsgesetz, abbreviated "WpHG").

According to a memo on voting rights, Bio-Rad Laboratories GmbH headquartered in Feldkirchen, Germany, holds more than 30% of the issued ordinary shares of Sartorius AG, which are moreover ascribed to Bio-Rad France Holding SAS, France, Bio-Rad Luxembourg S.à.r.l., Luxembourg, and to Bio-Rad Laboratories Inc., USA, pursuant to Section 34, Subsection 1, sentence 1, item no. 1, of WpHG. According to the company's own quarterly report dated September 30, 2021, the number of Sartorius AG shares held or ascribed to Bio-Rad Laboratories Inc. is specifically 12,987,900 ordinary shares (around 34.7% of all ordinary shares issued or around 37.9% of all ordinary shares outstanding) as well as a further 9,588,908 preference shares (around 25.6% of all preference shares issued or around 28.0% of all preference shares outstanding), thus around 30.2% of the entire capital stock of Sartorius AG.

Appointment and Dismissal of Executive Board Members | Amendment to the Articles of Association

Executive Board members of Sartorius AG are nominated and | or appointed as well as removed from office in accordance with Sections 84 et seq. of the German Stock Corporation Law (AktG) and Sections 31 and 33 of the German Codetermination Law (Mitbestimmungsgesetz, abbreviated "MitBestG"). Amendments to Sartorius AG's Articles of Association are regulated by Sections 133 and 179 of the German Stock Corporation Law (AktG).

Powers of the Executive Board to Issue Shares

Subject to approval by the Supervisory Board, the Executive Board is authorized to sell treasury shares held by the corporation, including selling them through channels other than the stock exchange or by tendering an offer to all shareholders in proportion to their participation in the company, provided that these shares are transferred to third parties as contribution in kind, particularly in the (indirect) acquisition of companies, in return. Under these circumstances, the preemptive rights of the shareholders are excluded.

Material Agreements with Clauses Regulating the Event of a Change of Control

The majority of the loan agreements contain customary market clauses regulating the possible event of a change of control and giving participating lenders the option of demanding complete repayment of the outstanding loan.

The loans are essentially outstanding note loans ("Schuldscheindarlehen"), a number of bilateral credit agreements and a syndicated credit line unused as of the reporting date. The repayment sum outstanding for these loan agreements stands at €1,927 million as of December 31, 2021.

Corporate Governance Report

Corporate government aligned with the interests of stakeholders, lawful and responsible conduct, and constructive cooperation between the managerial bodies and within the company in a spirit of mutual trust constitute the essential cornerstones of Sartorius' corporate culture.

The Executive Board and the Supervisory Board report in the following declaration on the key aspects of corporate management and governance pursuant to Section 289f of the German Commercial Code ("HGB") and to Article 3.10 of the German Corporate Governance Code.

Declaration of Compliance with Corporate Governance

Declaration of the Executive Board and of the Supervisory Board of Sartorius AG Concerning the Recommendations of the Government Commission on the German Corporate Governance Code Pursuant to Section 161 of the German Stock Corporation Law (“Aktiengesetz”):

The Executive Board and the Supervisory Board declare that Sartorius AG complied in the period since last year’s Declaration of Compliance was issued on December 3, 2020, and will continue to comply in the future, with the recommendations made by the Government Commission on the German Corporate Governance Code in the version as amended on December 16, 2019, (GCGC 2019) and published by the German Federal Ministry of Justice and Consumer Protection on March 20, 2020, in the official section of the German Federal Gazette ("Bundesanzeiger"), with the following exceptions:

- In divergence from the Recommendation pursuant to G.10, sentence 1, of GCGC 2019, the variable remuneration of the members of the Executive Board – except for that of the Executive Board Chairman – consists only to a minor extent of share-based remuneration components. The Supervisory Board believes that the terms of variable remuneration in place so far, which was not changed in this respect by the new remuneration system approved by the Annual General Shareholders’ Meeting on March 26, 2021, also provide for an incentive structure that is geared towards the sustainable and long-term development of the company.

- Part of the long-term variable remuneration of the members of the Executive Board has previously been available to said members before the end of four years. The new remuneration system that was approved by the Annual General Shareholders’ Meeting on March 26, 2021, and that applies to all new remuneration arrangements as of January 1, 2021, now, however, takes into account Recommendation G.10, sentence 2, of GCGC 2019, and accordingly provides that all components of the long-term variable remuneration of the Executive Board members are available to them only after four years.

Göttingen, December 9, 2021

For the Supervisory Board	For the Executive Board
Dr. Lothar Kappich	Dr. Joachim Kreuzburg

Further Remarks Concerning Corporate Governance

Sartorius AG is a joint stock corporation founded under German law and headquartered in Göttingen, Germany. With the Annual General Shareholders' Meeting, Supervisory Board and Executive Board, it has three corporate managerial bodies whose tasks and powers are essentially derived from the German Stock Corporation Law ("Aktiengesetz", abbreviated in German as "AktG") and the company's Articles of Association.

As owners of the company, the shareholders exercise their rights at its Annual General Shareholders' Meeting, where they decide, in particular, on the appropriation of profits, measures concerning share capital, amendments to the Articles of Association, discharge of the Supervisory Board and the Executive Board and the appointment of statutory auditors, as well as electing shareholder representatives to the Supervisory Board. The Annual General Shareholders' meeting is held at least once a year within the first eight months of the respective fiscal year.

In managing the company, the Supervisory Board and the Executive Board perform their tasks in a dual management system, each with separate duties and powers.

The Supervisory Board appoints members to the Executive Board, determines their remuneration and monitors and advises the Executive Board in its management of the company. The Supervisory Board is not authorized to take any operational management measures for the business.

The Executive Board is responsible for independently managing the company. In particular, it defines corporate strategy, coordinates and agrees on this approach with the Supervisory Board and implements such corporate strategy. In line with established reporting obligations, the Executive Board regularly informs the Supervisory Board promptly and comprehensively, and requests the latter's approval for certain key business transactions.

Composition and Operating Mode of the Supervisory Board and Its Committees

The Supervisory Board has an equal number of shareholder representatives and employee representatives: six shareowner representatives elected by the Annual General Shareholders' Meeting and six employee representatives elected according to the German Codetermination Law ("Mitbestimmungsgesetz"). Details on the members of the Supervisory Board and its committees are provided on pages 234 to 236.

The Supervisory Board Chairman coordinates the work within this board and convokes and conducts Supervisory Board meetings. Furthermore, he is the first individual for the Executive Board to contact and externally represents the matters of the Supervisory Board.

The Supervisory Board holds at least two meetings every six months. This board has established four committees: the Executive Task Committee, the Audit Committee, the Conciliation Committee and the Nomination Committee. The Executive Task Committee, Audit Committee and Conciliation Committee each have four members, consisting of an equal number of shareholder representatives and employee representatives (for the Executive Task Committee and the Conciliation Committee named here: Dr. Lothar Kappich (Chairman of both committees), Dr. Klaus Rüdiger Trützschler (professor), Ms. Annette Becker, and Mr. Manfred Zaffke, as well as for the Audit Committee Dr. Klaus Rüdiger Trützschler (Chairman), Dr. Lothar Kappich, Dietmar Müller and Manfred Zaffke); the Nomination Committee is composed of three shareholder representatives (Dr. Lothar Kappich, Dr. Daniela Favoccia and Dr. Klaus Rüdiger Trützschler, professor). The

Executive Task Committee and Audit Committee hold regular meetings; the Conciliation Committee and the Nomination Committee meet only as necessary.

The Executive Task Committee carries out preparatory work for resolutions and issues to be addressed in the meetings of the Supervisory Board. It also oversees the preparations for appointments, including the remuneration and employment contract conditions of members of the Executive Board. The Audit Committee supports the Supervisory Board in performing its supervisory function. The Chairman of the Audit Committee is an independent member of the Supervisory Board and has detailed knowledge and extensive experience in the application of accounting standards and internal control systems from his own professional practice. The Conciliation Committee meets if the majority required in connection with the appointment of members to the bodies authorized to represent the company for legal purposes is not reached. The Nomination Committee comprises representatives of the shareholders only. Its function is to propose suitable candidates to the Supervisory Board for the latter's election proposals submitted to the Annual Shareholders' Meeting. More information on the individual meetings held in the reporting year by the Supervisory Board and its committees is given in the Report of the Supervisory Board on pages 12 to 16.

The Supervisory Board carries out an assessment annually to determine how effectively the board as a whole and its committees fulfill their tasks. In the reporting year, this self-assessment was completed with external support on the basis of interviews with Supervisory Board members, Executive Board members, the independent auditors appointed, and the secretary of the Supervisory Board. The results of these interviews were presented in anonymized form in September 2021 and discussed within the Supervisory Board.

Appointment Objectives for the Supervisory Board; Diversity Policy and Competence Profile

Members of the Supervisory Board of Sartorius AG are to be appointed such that they, on the whole, have the knowledge, skills and experience that are necessary to perform the board's duties properly.

For this purpose and based on the recommendations of the German Corporate Governance Code, the Supervisory Board decided on the following appointment objectives:

- Independence: The Supervisory Board should contain at least four members on the shareholder side.

- Age limit: A fundamental age limit of 70 applies to members of the Supervisory Board at the time they are elected. The age limit may be waived in individual cases, provided there are no reservations about the suitability of the persons proposed and their election is expedient to the interests of the company in spite of the age limit being exceeded.

- Maximum number of mandates / time resources: A Supervisory Board member who is not a member of the management board of a listed company are not to hold more than five Supervisory Board positions at external listed companies or perform comparable functions; in this regard, the chairmanship of a Supervisory Board counts twice. A Supervisory Board member who is a member of the management board of a listed company must not hold more than two Supervisory Board positions at external listed companies or perform comparable functions, and must not chair the Supervisory Board at an external listed company. Regardless of other mandates held, care must be taken that every member has enough time to fulfill his or her mandate in the Supervisory Board of Sartorius AG.

- Former members of the Executive Board: No more than two former members of the Sartorius Executive Board are to serve simultaneously on the Supervisory Board.

- Function at competitor companies: Members of the Supervisory Board should not hold any board function or consulting mandate at companies that are important competitors of Sartorius AG, and should not be in a personal relationship to an important competitor.

In addition, the Supervisory Board has defined a competence profile for itself. It also covers aspects such as diversity, with regard, for example, to professional background and international experience. In view of achieving an appropriate gender balance, the legal quotas of at least 30% women and at least 30% men apply to the Sartorius Supervisory Board. The shareholder representatives and the employee representatives decided to fulfill these legal targets separately.

- In its election proposals for membership, the Supervisory Board is required to consider whether candidates have international experience or an international background within the scope of its current members.

- The Supervisory Board must have members with expertise in one or several of the international markets relevant for Sartorius.

- Members of the Supervisory Board need to bring in knowledge of technologies and products relevant to the Group, as well as of digitalization, and experience in research and development, particularly in the biopharmaceutical industry.

- The Supervisory Board must have members who have expertise in setting up and developing innovative business models, as well as knowledge of corporate strategies.

- Members of the Supervisory Board need to have in-depth knowledge of financial business processes and competences in financial controlling and risk management; at least one member of the Supervisory Board must have expert knowledge of accounting and at least one further member of the Supervisory Board expert knowledge of auditing (Section 100, Subsection 5, of AktG).

- Members of the Supervisory Board must have expertise in law, corporate governance and compliance.

- The Supervisory Board needs to have in-depth knowledge and a thorough background in issues concerning human resources.

According to the Supervisory Board's self-assessment, the members on its board meet the diversity and competency requirements. In addition, the board meets the appointment objectives described above.

In the opinion of the shareholder representatives on the Supervisory Board, Prof. David Ebsworth, Ph.D., Dr. Daniela Favoccia, Ilke Hildegard Panzer, Dr. Thomas Scheper, professor, and Dr. Klaus Rüdiger Trützschler, professor, are independent members of the Supervisory Board. As the executor for the community of heirs of Horst Sartorius, Dr. Lothar Kappich is to be regarded as dependent upon the controlling shareholder. However, despite the fact that Dr. Kappich has served on the Supervisory Board since April 2007 and has thus been a member for more than 12 years, the shareholders on the Supervisory Board regard him as independent of the company and its Executive Board. Thus, a Supervisory Board membership of many years alone would not constitute the grounds for the existence of any significant, or not merely temporary, conflict of interest. In particular, the circumstance that Dr. Kappich represents the majority of the voting rights in the company counters the presumption of his dependence on the company and its Executive Board.

With a view to achieving an equal gender balance, the Supervisory Board meets the quota of 30% set for the underrepresented gender. The Supervisory Board includes a total of seven men (around 58%), of whom four are shareholder representatives and three are employee representatives. In addition, five women (around 42%) are members of this board, among them two representatives of the share owners and three representatives of the employees. As a result, the gender quota requirements are met on both sides of Supervisory Board representation and on the full Supervisory Board itself.

To facilitate comparison of the appointment objectives, brief resumés of the Supervisory Board members are available on the Sartorius website.

Composition and Operating Mode of the Executive Board

The Executive Board of Sartorius AG manages the company under its own responsibility, with the goal of increasing the company's sustainable value. It develops the company's strategy, coordinates it with the Supervisory Board and ensures implementation of this strategy. Beyond that, the rules of procedure for the Executive Board define the legal transactions requiring approval by the Supervisory Board in order for such transactions to be effected. The Executive Board is responsible for compliance with all provisions of the law and the company's internal policies, as well as for appropriate risk management.

Decision-making by the Executive Board is done at its regular meetings, which are convoked and conducted by the Chairman. Other specialists and managers are invited as necessary to provide advice.

The Executive Board members are jointly responsible as a collegiate body for matters of special significance. As for the board's remaining responsibilities, each member independently manages the area assigned to him or her according to the plan for allocation of areas of responsibilities, and is required to notify the Chairman of all material transactions and events.

Composition of the Executive Board, Diversity and Competency Requirements

In the opinion of the Supervisory Board, the basic qualification criteria for appointments to positions on the Executive Board are professional qualifications for heading each particular area of responsibility, a proven track record in the individual's career path and convincing managerial skills. In addition, the Supervisory Board also considers the aspect of diversity in its appointment decisions. Therefore, the Supervisory Board strives to appoint people with complementary profiles, professional and personal life experiences and in different age brackets to the Executive Board. Moreover, the latter board is required to have broad international experience.

The Supervisory Board deals regularly with succession planning for the Executive Board in its Executive Task Committee and in its plenary sessions. To identify special talent within the company, promising junior staff are invited to make presentations to the Supervisory Board on specific topics.

An Executive Board member must not be older than 65 years of age at the time of his or her appointment. This age limit can be waived in individual cases, provided there are no reservations about the suitability of the person proposed and his or her appointment is expedient to the interests of the company in spite of the age limit being exceeded.

The Supervisory Board had set the goal of appointing at least one woman to the Executive Board by June 30, 2022, in accordance with the legal regulations in force up to this time. In doing so, the Supervisory Board deliberately pointed out that the Executive Board of Sartorius consists of four members and is therefore a relatively small committee for which setting a rigid gender quota can be problematic. Currently, the

Executive Board of Sartorius AG consists of four men and, since January 1, 2019, with the same personnel composition. Upon the next new appointment to the Executive Board, the gender target will be achieved and, as a result, the statutory gender participation requirement will be met, which has meanwhile been resolved and will enter into effect in August 2022.

Regarding the appointment of women to the Executive Board of Sartorius AG as well, the Supervisory Board supports the activities of the Executive Board to further increase the percentage of female executives at the management levels subordinate to the Executive Board in the company. The Executive Task Committee and the full Supervisory Board regularly receive reports on the development of the proportions of women in senior-level management positions

First and Second Management Levels Below the Executive Board

Over the past years, the percentage of women at the first two management levels below the Executive Board has considerably increased on the whole and is already at a comparably high level.

The Executive Board resolved in 2017 to increase the proportion of women at both levels of management below this board to around 30% by the next deadline of June 30, 2022. Currently, the proportion of women at the first level is significantly above this target at around 44%, while this proportion at the second level is slightly lower at around 28%. In general, it should be noted that owing to the relatively small number of managers at the first level, even individual personnel changes can lead to sizable swings in the quota. Moreover, in the past the consolidation of acquired companies has frequently led to a slight dilution in the proportion of women, and this effect cannot be excluded in the future.

Remuneration Report | Remuneration Policy

The remuneration report for fiscal 2021 and the auditor’s notice in accordance with Section 162 of AktG, the remuneration policy currently in place as approved by the Annual General Shareholders’ Meeting on March 26, 2021, pursuant to Section 87a, Subsections 1 and 2, sentence 1, of AktG, and the resolution approved by the Annual General Shareholders’ Meeting on March 26, 2021, on the remuneration pursuant to Section 113, Subsection 3, of AktG are publicly accessible at www.sartorius.com/Compliance.

Further Corporate Governance Practices

Risk Management

Conscientious management of commercial risks is a key principle of good corporate governance. Sartorius AG and the Group have at their disposal enterprise-wide and company-specific reporting and control systems designed to facilitate the recording, assessment and management of commercial risks. These systems are developed and adapted continuously as conditions evolve. The Executive Board informs the Supervisory Board regularly of existing risks and their development. The Audit Committee is concerned, in particular, with monitoring of the following: the accounting process including reporting; the efficacy of the internal control system; risk management and the internal auditing system; compliance; and the independent statutory audit. Details on risk management are presented in the Opportunity and Risk Report.

Transparency

Sartorius AG places great importance on disclosing consistent and complete information promptly. Information about the economic position of the Group and new developments is consequently released regularly, without delay, as it becomes known in order to inform participants in the capital market and interested members of the public at large. The annual report, first-half financial report and quarterly reports are published within the timeframes specified for this purpose. Current developments and material events are publicized as press releases and, where appropriate, ad hoc announcements. This information is usually made available in German and English simultaneously and published via suitable media and on the internet.

The chief recurring events and publications, such as the Annual General Shareholders' Meeting, the annual report and the interim reports, are listed on a financial calendar that may be viewed at any time on the Group website.

Share Trading Activities of Supervisory and Executive Board Members

Notifiable proprietary trading involving shares of Sartorius AG or related financial instruments by the members of the Executive Board and the Supervisory Board or other persons with management responsibilities or their related parties were not reported to us:

The Chairman of the Executive Board, Dr. Joachim Kreuzburg, holds 113,785 ordinary shares and 113,785 preference shares in the company. They were transferred to him as components of his remuneration on the basis of corresponding agreements in his employment contracts of December 18, 2015, and November 26, 2020, each with a minimum holding period of four years from the beginning of the respective contract. For further information on this transfer, please see the Remuneration Report on pp. 100 et seq.

As executor of the estate of Horst Sartorius, the Supervisory Board Chairman, Dr. Lothar Kappich, holds around 50.1% of the ordinary shares issued by the company. Beyond this, there is no notifiable possession of shares or financial instruments by members of the Executive Board or Supervisory Board consisting directly or indirectly of more than 1% of the shares issued by the company.

Accounting and Independent Statutory Audit

The consolidated financial statements and the Group Management Report, as well as the consolidated interim financial statements and reports, are prepared in accordance with the International Financial Reporting Standards (IFRS) as they are to be applied within the EU, and according to the commercial law regulations to be applied under Section 315e, Subsection 1, of the German Commercial Code, HGB. The annual financial statements of Sartorius AG are prepared in accordance with German commercial law, HGB. The consolidated financial statements and the annual financial statements are prepared by the Executive Board, audited by the independent auditors elected by the Annual General Shareholders' Meeting and approved by the Supervisory Board.

It has been agreed with the independent auditors that they will notify the Supervisory Board directly of any potential disqualification or bias issues and any material findings and incidents identified during the audit. This also encompasses the corporate governance reporting duties pursuant to Section 161 of the German Stock Corporation Law (Aktiengesetz).

Basic Principles of Our Compliance Management System | Code of Conduct

With its compliance management system that is valid worldwide, Sartorius ensures that the members of its individual boards, executives and employees comply with all legal regulations and codes, and perform their activities in accordance with the company's internal rules and guidelines. Targeted training and awareness-raising prevent any misconduct, as well as economic damage and loss of image.

Sartorius makes every effort to ensure optimal risk management by using a combination of approaches: a preventive compliance approach designed to proactively stop any potential breaches before they occur and a repressive compliance approach intended to continuously monitor compliance with the company's rules. These processes are closely intermeshed, creating a standardized compliance management system that aims to offer the best possible protection against potential violations of rules and regulations. Sartorius has developed a Code of Conduct as a preventive component of its compliance management system and has committed to an Anti-Corruption Code. An internal system is available for reporting any suspicious circumstances involving potential compliance violations.

Further information is given on pp. 87 et seq. and on the company's internet website at www.sartorius.com.

The Supervisory Board | The Executive Board

Remuneration Report

1. Main Features of the Remuneration Plan for the Executive Board

A. Main Features of the Remuneration Policy and Contribution Toward Promoting the Corporate Strategy and Long-Term Development of the Company

The remuneration policy for the Executive Board aims to remunerate the members of the Executive Board appropriately in line with their tasks and responsibilities and to directly consider the performance of each member of the Executive Board and the success of the company. Accordingly, the remuneration policy includes fixed remuneration components as well as short- and long-term variable remuneration components.

The company strategy seeks to achieve profitable growth and a sustained, long-term increase in the value of the company. This strategy is the basis from which the structure of the remuneration policy is derived for the Executive Board of Sartorius AG: The short-term variable remuneration depends on annual corporate targets that are aligned with key performance indicators for profitable growth of the company. Long-term remuneration depends on a corporate goal that reflects the sustainable and long-term growth of the company and the Group, on the one hand, and on the long-term performance of the share price, which directly mirrors the development of the company's value, on the other. As a result, the company's remuneration policy creates incentives to promote the long-term and positive sustainable development of the company.

The policy for remuneration of the Executive Board members is designed to be simple, clear and understandable. This system meets the requirements of the German Stock Corporation Law ("Aktiengesetz," abbreviated as "AktG") as well as the recommendations of the German Corporate Governance Code (abbreviated as "GCGC") with the exception of any divergences explained in the Declaration of Compliance with the Recommendations of the GCGC as amended from time to time. The existing divergences in the reporting year from the recommendations of the applicable GCGC in the area of remuneration are given below.

B. Details of the Remuneration Policy

I. Remuneration Components

1. Overview of the Individual Remuneration Components

Remuneration consists of fixed and variable components. The fixed components are the fixed annual salary and fringe benefits. The variable performance-based components are comprised of short-term components with a one-year assessment basis and of long-term components with a multi-year assessment basis. In addition, there are pension commitments, which depend, among other things, on the amount of the own contribution made by the respective Executive Board member in the form of deferred compensation for variable remuneration components, and which are therefore also variable.

2. Fixed Remuneration Components

a) Fixed Annual Remuneration

Fixed annual remuneration is cash compensation related to a specific fiscal year, and is based in particular on the area of duties and responsibilities of the respective Executive Board member. This fixed annual remuneration is paid in twelve monthly installments.

b) Fringe Benefits

Beyond the remuneration components stated above, the members of the Executive Board receive the following fringe benefits: each member is entitled to use a company car that can also be utilized for private purposes and to be covered by accident insurance taken out in the respective Executive Board member's name as a beneficiary. Moreover, for Executive Board members residing outside Germany, Rainer Lehmann und John Gerard Mackay, the costs for taking flights home and running two households as well as the costs associated with said activities are also paid by the company as fringe benefits.

Furthermore, the company maintains a D&O insurance policy concluded for Executive Board members as beneficiaries. The respective insurance premiums are not of a remunerative nature and are therefore not recognized as salary expenses.

3. Variable Performance-Based Remuneration Components

a) Short-Term Variable Remuneration with a One-Year Assessment Basis

In addition to the fixed remuneration components, all Executive Board members are entitled to receive short-term variable remuneration with a one-year assessment basis.

Target Parameters

Short-term variable remuneration with a one-year assessment basis consists of three individual components related to the subordinate financial targets of sales revenue | order intake, underlying EBITDA, and the ratio of net debt to underlying EBITDA.

These subordinate financial targets are essential control elements for profitable growth as well as for a sustainable and long-term increase in the value of the company and thus serve to implement the company's overall strategic objectives. There are no non-financial target parameters.

Measurement of Target Achievement and Payment

For each target parameter, the Supervisory Board has defined a formula that is used to calculate the amount to be paid out according to the degree of target achievement for the associated individual component. For each of these components, the Supervisory Board also sets (i) a minimum target to be achieved below which the amount that will be paid out is zero, and (ii) a maximum target to be achieved above which the amount that will be paid out will no longer increase. Therefore, the amount paid out for each subordinate target is capped at the maximum percentage of the individual target amount. This cap is currently 120% for all subordinate targets.

For each of the individual components of short-term variable remuneration with a one-year assessment basis, the Supervisory Board sets a separate individual target amount for every Executive Board member before the beginning of a fiscal year. This target amount is used as the basis to determine the specific amount to be paid out according to the particular target achievement of the relevant subordinate target for the fiscal year in question. The targets are weighted for the individual Executive Board members according to their area of responsibility and relate to the divisions and/or to the Group, respectively.

The Supervisory Board derives each target value of the subordinate financial targets from the approved annual budget for a respective fiscal year and determines the degree of target achievement by comparison with the actual result yielded in the company's consolidated financial statements audited and approved for this respective financial year. In calculating these target values, the Supervisory Board can adjust the actual amounts reported in the consolidated statements to allow for non-recurring, unusual and/or non-operating items.

Annual short-term variable remuneration is calculated for a fiscal year ended and paid in the following fiscal year.

The subordinate targets within the short-term variable remuneration are weighted for the Executive Board members as follows:

Subordinate Target	Executive Board Chairman | Chief Financial Officer	Executive Board Members with Division Responsibility
Related to the Sartorius Group		
Average calculated from sales revenue | order intake	30%	9%
Underlying EBITDA	40%	12%
Ratio of net debt to underlying EBITDA	30%	9%
Related to the particular division		
Average calculated from sales revenue | order intake	--	30%
Underlying EBITDA	--	40%

Subordinate Target “Average Calculated from Sales Revenue | Order Intake”

The subordinate target “average calculated from sales revenue | order intake” is a key performance indicator of growth and is derived from the budget for the Group or division, respectively. The minimum target achievement is 90% of the target amount, and this amount is capped at 104%. If 90% of the target amount is achieved, 50% of the associated individual target sum will be paid out; if the target is achieved at less than 90%, no payment will be made for this subordinate target. If 104% of the target amount is achieved, an amount equal to 120% of the corresponding individual target amount will be paid out; if the target is achieved in excess of this percentage, this will not further increase the amount to be paid out. Intermediate values are interpolated linearly. Target achievement is measured on the basis of actual sales and order intake in constant currencies, as reported in the company's consolidated financial statements audited according to the defined audit focal points and approved, as well as adjusted for the amounts contributed by businesses acquired or divested during the respective reporting year to the extent that such businesses are not part of the target amount. Moreover, in individual cases, the Supervisory Board may make further adjustments to the actual amounts to allow for non-recurring, unusual circumstances.

Due to the dynamic business performance in 2021, the Group as well as both the Bioprocess Solutions Division and the Lab Products & Services Division achieved amounts for the subordinate target “average calculated from sales revenue | order intake” that exceeded the defined targets of 104%. As a result, each Executive Board member will be paid 120% of the individual target amount for this subordinate target.

Subordinate Target “Underlying EBITDA”

The subordinate target “underlying EBITDA” is a key profitability indicator of the Group. This indicator is used to provide a picture of the Group’s operating development that is also internationally better comparable. Underlying EBITDA stands for earnings before interest, taxes, depreciation and amortization and adjusted for extraordinary items. The target is derived from the budget and is defined by the Supervisory Board for the Group or division, respectively. The minimum target achievement is 70% of the target amount, and this amount is capped at 120%. The level of the bonus payment is linear to the level of target achievement; i.e., if 70% of the subordinate target is achieved, 70% of the related individual target amount will be paid out, or if 120% of the target is achieved, 120% of the related individual target amount will be paid out. If the target is achieved at less than 70%, no payment will be made for this subordinate target. By contrast, if the target is achieved by 120% or more, this will not further increase the amount to be paid out. Target achievement is measured on the basis of the actual underlying EBITDA figure, as reported in the company's consolidated financial statements audited according to the defined audit focal points and approved, as well as by taking into account current exchange rates. Moreover, in individual cases, the Supervisory Board may make further adjustments to the actual amounts to allow for non-recurring, unusual circumstances.

In fiscal 2021, target achievement for the subordinate target "underlying EBITDA" exceeded 120% of the target value for the Group as well as for both divisions so that each Executive Board member will be paid an amount of 120% of the individual target amount for this subordinate target.

Subordinate Target "Ratio of Net Debt to Underlying EBITDA"

The subordinate target "ratio of net debt to underlying EBITDA" is a key financial ratio regarding the Group's debt financing capacity. This ratio is calculated as the quotient of net debt and underlying EBITDA. It is derived from the budget and is defined by the Supervisory Board for the Group. The level of the bonus paid is between 50% and 120% of the respective subordinate target amount. If the target ratio is reached, the bonus level to be paid is 100%. If net debt to underlying EBITDA is above the target ratio, the bonus level will decrease proportionately down to 50% if the maximum amount defined by the Supervisory Board for the ratio of net debt to underlying EBITDA is reached. If the ratio exceeds this maximum amount, no bonus will be paid for this subordinate target. By contrast, if net debt to underlying EBITDA is below the target ratio, the bonus amount is capped at 120%, with the associated ratio of net debt to underlying EBITDA derived mathematically on a linear proportional basis from the maximum and target values for this ratio as defined by the Supervisory Board. Target achievement is measured on the basis of the actual ratio of net debt to underlying EBITDA in constant currencies, as reported in the company's consolidated financial statements audited according to the defined audit focal points and approved, as well as adjusted for inflows and outflows entailed by strategic (capital) measures, such as acquisitions, provided that such inflows and outflows are not included in the target ratio. Moreover, in individual cases, the Supervisory Board may make further adjustments to the actual amounts to allow for non-recurring, unusual circumstances.

In fiscal 2021, target achievement for the subordinate target "ratio of net debt to underlying EBITDA" was significantly below the ratio defined as the target and an amount will be paid out accordingly for this subordinate target.

b) Long-Term Variable Remuneration Components

In the reporting year, the long-term variable remuneration components for all Executive Board members first consisted of the following two individual components: One individual component is related to the development of the consolidated net profit in a three-year assessment period as a target parameter; the other, to the price development of Sartorius AG preference shares in an assessment period of (at least) four years. As a result, the long-term variable remuneration components are also aligned with financial target parameters that measure profitable growth and a sustainable and long-term increase in the value of the company, and thus serves to implement the company's overarching strategic objectives. Non-financial target parameters are currently not provided for the long-term variable remuneration components either.

Regarding its three-year assessment basis, the individual component of the consolidated net profit granted as long-term variable remuneration in the reporting year of 2021 does not yet correspond to the Executive Board remuneration policy approved by the Annual General Shareholders' Meeting on March 26, 2021, pursuant to Section 120a, Subsection 1, of AktG. The new remuneration policy provides for a four-year assessment basis in line with Recommendation G.10, sentence 2, of GCGC and, as a result of the respective new remuneration arrangements from 2022 onwards, this individual component will be paid to all current members of the Executive Board except to Mr. Rainer Lehmann. For Mr. Rainer Lehmann, the three-year assessment basis will still apply up to the end of his current appointment, i.e., until February 28, 2025. Insofar as a three-year assessment basis is still applied in the reporting year or beyond, this is therefore based on remuneration provisions in Executive Board contracts concluded before Recommendation G.10 of GCGC entered into force.

The two previously mentioned long-term variable remuneration components are each weighted at 50%. For each of both individual components, a separate individual target amount is defined for every Executive Board member. This target is used as the basis for calculating the specific bonus amount to be paid out based on the degree of achievement of the associated targets defined for the respective fiscal years.

The Executive Board Chairman Dr. Joachim Kreuzburg was additionally granted share-based compensation as a further long-term variable remuneration component. The long-term increase in the value of the company as an overriding strategic objective of the company is also promoted by this share-based compensation and participation provided by this in the development of the price of the company's shares. The respective long-term variable remuneration components together generally represent the majority of the variable compensation components for each Executive Board member. Something different from this arrangement applied in the reporting year of 2021 to Executive Board members Dr. René Fáber and John Gerard Mackay for whom the long-term components accounted for half of their variable remuneration in total. However, in this case as well, their long-term variable remuneration components together will constitute the majority of their variable remuneration as of 2022 due to the new remuneration arrangements meanwhile approved.

Because of the equal weighting of the two components of long-term variable remuneration related to consolidated net profit and the performance of the preference share price, the share-based portion of variable remuneration does not represent, in principle, the predominant portion of the variable remuneration of the members of the Executive Board, in divergence from Recommendation G.10, sentence 1, of GCGC. The Supervisory Board believes that even with the current weighting, an incentive structure is achieved which is geared to the sustainable and long-term development of the company. In the case of the Chairman of the Executive Board, however, his variable remuneration is predominantly share-based in view of the additional share bonus granted, in line with this Recommendation.

Consolidated Net Profit

The individual component related to consolidated net profit has an assessment period of three consecutive fiscal years and begins with the fiscal year in which the tranche concerned is granted. A new tranche is granted on a rolling basis for each fiscal year. The amount paid out for a particular tranche depends on the total target achievement for the respective assessment period, which corresponds to the average target achievement for each of the three fiscal years of the relevant assessment period. For each fiscal year, the Supervisory Board annually defines a target for consolidated net profit in euros. To determine the level of target achievement for a fiscal year, the consolidated net profit (up to and including the 2020 amount granted, after deduction of non-controlling interest) that is reported in the company's consolidated financial statements audited according to the defined audit focal points and approved and excludes amortization (impairment of the value of intangible assets due to business combinations pursuant to IFRS 3) is compared with the respective target set by the Supervisory Board. In individual cases, the Supervisory Board may make further adjustments to the actual amount to allow for non-recurring, unusual items and/or non-operating items.

This remuneration component is calculated according to the individual target amount and a formula defined by the Supervisory Board. This formula provides for (i) a minimum target to be achieved below which the amount that will be paid out is zero, and (ii) a maximum target to be achieved above which the amount that will be paid out will no longer increase. Therefore, the amount paid out for this remuneration target is capped at the maximum percentage of the individual target amount. This cap is currently 120% for all individual target amounts and is reached at a target achievement level of 120%. This remuneration component is generally paid out upon expiration of the last fiscal year in the respective period of assessment for the tranche concerned. The period of assessment for granting such bonus amounts in the reporting year and for the previous years was three years, but according to the new remuneration policy, is to be converted to a four-year period in the future.

However, to smooth the amounts to be paid out, a partial payment amounting to 50% of the target achievement for the first fiscal year of each respective average period of assessment for a tranche is effected based on the individual subordinate target. Such a partial amount is calculated and paid out at the end of the first fiscal year of a respective assessment period based on the company’s consolidated financial statements audited according to the defined audit focal points and approved. Any overpayments as a result of these partial payments will be offset against other remuneration components once the total target achievement has been determined after the third fiscal year of the relevant assessment period.

The target achievement in fiscal 2021 for the "consolidated net profit" component was above 120% of the target. For the target achievement in the multi-year period of 2019 to 2021, target achievement also exceeds the cap of 120% and, therefore, a payout of 120% less the partial payment granted in 2019 will apply to this three-year period. The complete target achievement for the multi-year assessment period beginning in 2021 cannot be determined until the consolidated financial statements audited and approved for 2023 are available.

Development of the Preference Share Price (Phantom Stock Plan)

Executive Board members receive virtual shares, so-called phantom stock units, as a second individual component of long-term variable remuneration. Through the issue of such shadow shares, Executive Board members are treated as if they were owners of a certain number of preference shares in Sartorius AG, without, however, being entitled to receive dividends. The development of the value of this phantom stock is linked with the development of the Sartorius preference share; both increases and decreases in the share price are taken into account. Later, the value of this phantom stock is assessed based on the share price at the time, and its equivalent is paid out in cash, provided that the associated conditions are met. Phantom stock cannot be traded and does not entail any share subscription rights.

According to the Sartorius phantom stock plan, each Executive Board member is credited at the beginning of every year with phantom stock units valued at an agreed monetary sum. The value of this phantom stock can be paid out only as an entire annual tranche. Payment can be requested at the earliest after a period of four years and no later than after eight years. If a member's appointment term begins during a year, this member will be assigned phantom stock units retroactively as of the beginning of this fiscal year (pro rata temporis, if applicable).

An Executive Board member is entitled to receive payment for phantom stock units only if the share price at the time of such payment request has appreciated at least 7.5% per year relative to the time the phantom stock was assigned or if the share price outperformed the TecDAX as a comparative index. In addition, the value of the phantom stock units must be at least 50% of the grant value. The phantom stock plan rules out subsequent changes to the parameters used for comparative stock valuation.

Assignment of this phantom stock and later payment of its monetary equivalent depend on the mean value calculated from the average prices of the Sartorius AG preference share, with said prices quoted in the closing auction of Xetra trading on the Frankfurt Stock Exchange (or a corresponding successor trading system) over the last 20 days of trading of the previous year (in the case of assignment) or over the last 20 days of trading prior to submission of a payment request (in the case of payment). This serves to compensate for any short-term fluctuations in the share prices.

The amount to be paid is capped at a maximum of 2.5 times the share price at the time the phantom stock was assigned, based in each case on the individual annual tranche.

Under the current terms of the phantom stock plan, payment for phantom stock is blocked for the four weeks preceding the scheduled publication date of quarterly results and for the 30 calendar days before the scheduled publication of the half-year results and preliminary year-end results, as well as for 20 days of trading on the stock exchange following the actual publication of quarterly and preliminary year-end results. These black-out periods are intended to ensure that payments are only made during periods in which the most recent business results have already been processed in the capital market and the regular publication of further business results is still sufficiently far in the future.

The fair value grant price for this remuneration component is €354.13 for 2021. Target achievement for this subordinate target is reported in the remuneration report after vesting or exercise by the Executive Board members; i.e., between 2025 and 2029.

Share-Based Payment

In December 2019, Executive Board Chairman Dr. Kreuzburg was additionally granted share-based payment in connection with the fourth extension of his appointment as a member and Chairman of the Executive Board as well as CEO. This was in the form of company shares with a grant date fair value totaling €5.0 million (based on the share price as of December 5, 2019, as the grant date); this corresponds to a proportional grant date fair value of €1.0 million for each year of his new five-year term of appointment. For this purpose, a corresponding number of treasury shares (27,570 own shares in total), consisting of equal proportions of own preference shares and own ordinary shares, were transferred to Dr. Kreuzburg at the beginning of his new term in November 2020. The shares granted are subject to a holding period that will end on November 10, 2024. Should Dr. Kreuzburg leave the company prior to November 11, 2022, at his own request, his entitlements to be granted said shares by transfer shall lapse in their entirety. If Dr. Kreuzburg leaves the company after November 10, 2022, and before November 11, 2024, at his own request, half of his entitlements to be granted said shares shall lapse. For the purpose of the target total remuneration, the shares granted for Dr. Kreuzburg's current five-year term of appointment are recognized at their pro-rated grant date fair value for each year of his term of appointment.

4. Pension Commitments

The members of the Executive Board generally receive pension commitments as defined-benefit plans for their first reappointment. At the request of the Executive Board member concerned, the company will take out an insurance policy for the term of his employment contract and pay the particular benefit contributions into this insurance. Each benefit contribution consists of a basic amount between 10% and 14% (as of 2022 the same rate of 14% for all Executive Board members) of the particular member's annual fixed remuneration. On request, the particular Executive Board member concerned can additionally pay in, as a personal benefit contribution by way of deferred compensation, a partial sum of between 5% and 7% maximum (as of 2022 the same rate of 7% for all Executive Board members) out of the gross amount paid to this Executive Board member in the respective fiscal year as short-term variable compensation and as long-term variable compensation based on net profit. If a member of the Executive Board exercises this right, the company on its part will make an additional contribution in the same amount (matching benefit contribution). In divergence from this arrangement and from the requirements of the new remuneration policy, Executive Board member John Gerard Mackay will receive, for the last time for fiscal 2021, a basic amount of 9.5% of the sum of his annual fixed remuneration – reduced by a supplementary amount for fixed remuneration, which was originally agreed as an allowance for a company car (so-called "car allowance") –and the target amount of his annual variable remuneration; accordingly, the option for deferred compensation and matching benefit contribution does not apply to him. For the purpose of deter-mining the target total compensation and the relative share of the pension commitments in a member's target total remuneration, only the basic amount to be paid by the company and the matching benefit contribution were taken into account (based on 100% target achievement of the relevant variable remuneration components).

Pursuant to the insurance terms and conditions, the pension benefit can be granted in the form of a retirement pension or a lump-sum payment for reaching the regular retirement age or needing to retire due to disability, as well as in the form of surviving dependents' benefits for widows and orphans, according to which particular option an Executive Board member elects. The company does not guarantee the paid-in capital or an annual interest rate.

Furthermore, an earlier pension agreement granted to Dr. Kreuzburg provides that he will receive a monthly pension dependent on the basic salary of a German federal civil servant classified as grade 10 of salary class B for ministry officials according to the Federal Civil Service Remuneration Act ("Bundesbesoldungsgesetz") in the respective version applicable. With each full year of service on the Executive Board, 5% of his full pension will be vested until his fully vested pension will have been reached after 20 years. In this case, these retirement benefits will have been fully vested, taking his years of service on the Executive Board into account, at the end of December 31, 2021. His retirement benefits will be granted in the form of a pension in the cases where he reaches the regular retirement age or needs to retire due to disability, as well as in the form of a pension for widows and orphans and shall correspond to 70% of the monthly pension benefits of a German federal civil servant classified as grade 10 of salary class B for ministry officials according to the Federal Civil Service Remuneration Act ("Bundesbesoldungsgesetz"). These additional pension commitments are considered in the determination of Dr. Kreuzburg's target total remuneration and of the relative proportion of his pension commitments in his target total remuneration along with the respective employee benefit expense attributable thereto.

The regular retirement age for all pension commitments is 65. There are no early retirement regulations, except in the case of disability.

5. Other Remuneration Components

The remuneration policy provides that the Supervisory Board may grant special compensation at its reasonable discretion for extraordinary performance by a member of the Executive Board. The Supervisory Board exercised this right due to extraordinary performance in the reporting year of 2021 and paid a special bonus of €45,000 to each member of the Executive Board.

II. Target Total Remuneration; Relative Percentages of Fixed and Variable Remuneration Components

The Supervisory Board determines a specific target total remuneration for each Executive Board member. The target total remuneration is the sum of all remuneration components relevant for total remuneration. For the variable components, the target amount is taken as a basis in each case of 100% target achievement, provided that a target is measured. In the case of share-based compensation, which is granted as an additional variable remuneration component only to the Executive Board Chairman, the pro-rated grant date fair value (= €1.0 million annually) is recognized for each year of the Chairman's associated contract term to ensure transparent and traceable reporting for the purposes of target total remuneration. Regarding pension commitments, it is further assumed that the Executive Board members will exercise their right to receive deferred compensation of their variable remuneration components (based on 100% achievement of targets) to the maximum extent permitted and that the company will therefore also pay each member a corresponding additional amount as a matching contribution.

For the Executive Board Chairman, the relative percentage of fixed remuneration components (fixed annual salary and fringe benefits) is around 29% and the percentage of the variable remuneration components on the whole around 64% of his target total remuneration. The percentage of the short-term (target) compensation of his target total remuneration is around 17%; that of the long-term compensation of his target total remuneration, around 47%. The percentage of pension commitments for the Executive Board Chairman is currently around 7% of his target total remuneration.

For the other Executive Board members, the relative percentage of the fixed remuneration components (fixed annual salary and fringe benefits) is between 45% and 51% of their respective total target remuneration and the percentage of all variable remuneration components between around 43% and 49% of their corresponding target total remuneration. The percentage of the short-term (target) compensation of their respective target total remuneration is between around 21% and 25%; that of the long-term compensation of their corresponding target total remuneration, between around 21% and 28%. The percentage of their pension commitments is currently between 0% and around 8% of their respective target total remuneration.

The defined relative proportions of the remuneration components correspond in their respective amounts to the requirements of the relevant remuneration policy

III. Reclaiming or Reducing Variable Remuneration (Clawback)

After the German Corporate Governance Code had entered into force in the version of December 16, 2019 (GCGC 2019), as amended, provisions were included in all newly executed or amended Executive Board employment contracts, with each provision having a future effective date and specifying that the company is entitled to reclaim from Executive Board members variable remuneration components already paid out to them in the following cases described:

1. Performance Clawback

If the entitlement to payment of annual short-term variable remuneration and of remuneration with a multi-year assessment basis in relation to the individual component of consolidated net profit is based on audited and approved consolidated financial statements that were objectively incorrect and therefore had to be subsequently corrected in accordance with the relevant accounting standards, and if no or a lower entitlement to payment of variable remuneration components would have arisen based on the corrected audited consolidated financial statements, the company may reclaim the corresponding amount of overpayment from the respective Executive Board member.

2. Compliance Clawback

If an Executive Board member commits, either through gross negligence or willful intent, any dereliction of the duty to exercise the skill and care of a prudent manager faithfully complying with his duties in accordance with Section 93, Subsection 1, of the German Stock Corporation Law “AktG,” the company shall be entitled to reclaim from the respective Executive Board member the full or partial repayment of the annual short-term variable remuneration paid out to him for the respective assessment period in which the breach of duty occurred, the remuneration with a multi-year assessment basis related to the individual component of the consolidated net profit, and of the liquidated phantom stock units and/or to declare that member’s forfeiture with respect to tranches of phantom stock units yet to be granted.

The Executive Board member shall not be obligated to reimburse the company if more than three years have elapsed as counted from the payment of the respective variable remuneration components up to the time a claim against said member for reimbursement is asserted. The objection of disenrichment in accordance with Section 818, Subsection 3, of the German Civil Code “BGB” is excluded under the remuneration policy. The right to claim damages pursuant to Section 93 of the German Stock Corporation Law “AktG” shall remain unaffected.

3. Exercise

In fiscal 2021, none of the conditions for reclaiming or reducing remuneration under these clawback provisions existed. Accordingly, no use was made of this right to exercise a clawback option.

IV. Remuneration-Related Legal Transactions

1. Terms and Prerequisites for Termination of Remuneration-Related Legal Transactions

The employment contracts of Executive Board members are concluded for the term of their respective appointments. Initial appointments are each for a maximum of three years; extensions of an appointment term are for up to five years.

The current terms of the employment contracts of the incumbent members of the Executive Board are as follows:

- Dr. Joachim Kreuzburg: November 10, 2025
- Dr. René Fáber: December 31, 2026

- Rainer Lehmann: February 28, 2025
- John Gerard Mackay: December 31, 2023

Termination of their employment contracts by giving due and proper notice is excluded. For this reason, an employment contract of an Executive Board member can only be terminated by mutual agreement based on a termination agreement or by termination for good cause with immediate effect. The company may terminate an Executive Board member's employment contract for good cause defined by the German Stock Corporation Law "AktG" as "grave cause," particularly in the event that the Supervisory Board revokes this member's appointment for said grave cause pursuant to Section 84, Subsection 3, of AktG. In this case, the statutory periods of notice pursuant to Section 622 of the German Civil Code "BGB" shall apply, unless there is also a compelling reason ("good cause") for termination without notice pursuant to Section 626 of BGB.

2. Severance Payments

The employment contracts for Executive Board members provide that a member will receive a severance payment in the event the company terminates the employment contract of said member with immediate effect, provided that said member is not responsible for any grave cause or compelling reason warranting said termination ahead of the regular contract expiration date. The amount of the severance payment shall be two years' salary maximum, but shall not exceed the amount of remuneration that would be payable until the end of the contract term.

Furthermore, in the event of early termination of employment on the Executive Board by mutual agreement, the company may also grant, or agree to grant, severance payments, the amount of which shall be limited, in turn, to a maximum of two years' remuneration and shall not compensate for more than the remaining term of the member's employment contract.

3. Non-Competition Clause

The Executive Board employment contracts provide for a post-contractual non-competition clause for a duration of up to two years upon termination of employment with the company. In the event that this non-competition clause is not waived or is nullified, half of the remuneration last paid by the company shall be granted to the respective Executive Board member as compensation for non-competition throughout the non-competition period. Any severance to be paid in connection with the termination of an employment contract to an Executive Board member shall be deducted in full from said compensation for non-competition in accordance with Recommendation G.13 of GCGC 2019 in the future – upon commencement of the respective new contract term and thus no later than the start of 2022 – provided that the employment contracts concerned have been extended after GCGC 2019 had entered into force. A different arrangement applies to the Executive Board contract of Rainer Lehmann whose contract term had already been extended earlier and whose contract does not contain any deduction clause.

V. Procedure for Establishing and Implementing as well as Reviewing the Remuneration Policy

The Supervisory Board establishes and regularly reviews the remuneration policy for the Executive Board. The Executive Task Committee of the Supervisory Board prepares the remuneration policy for approval by the full Supervisory Board and makes the respective suggestions.

In the process, the Supervisory Board also reviews the appropriateness of such remuneration in comparison to the remuneration of the Executive Board within the peer group of the company (horizontal appropriateness). The peer group is defined by the Supervisory Board and/or its Executive Task Committee and is adapted as necessary. In defining the composition of the current peer group, the Executive Task Committee first reviewed domestic and foreign companies (from Germany, Europe and the USA) that are each comparable with Sartorius in terms of sector, size and sales. However, further analysis showed that the compensation levels at the relevant foreign companies differ significantly upwards from the compensation levels of the companies based in Germany and that the compensation levels differ considerably in terms of the weighting of their components. Against this background, it was decided to include only companies based in Germany in the peer group, yet to make a deliberately broad selection and to reference a group of companies of different sizes, sectors and capital market indices. The peer group currently comprises the following companies: Bechtle, Carl Zeiss Meditec, Compugroup Medical, DMG Mori Seiki, Drägerwerk, Drillisch, ElringKlinger, Evotec, Freenet, Fresenius Medical Care, Gerresheimer, Grenke, KWS Saat, Pfeiffer Vacuum Technology, Qiagen, Siltronic, Software AG, Symrise, and United Internet.

In establishing the remuneration for the Executive Board members, the Supervisory Board further considers both the compensation of senior management and that of the remaining workforce in relation to the German Group companies (vertical appropriateness). For these purposes, the Supervisory Board defines senior management as the group of executives of the first two management levels below the Executive Board. The Supervisory Board looks not only at the current compensation ratio, but also at how it has developed over time.

If necessary, the Supervisory Board will engage an independent compensation consultant to review vertical and horizontal appropriateness; this was last done in 2018. Furthermore, the Supervisory Board also considers the requirements of the German Corporate Governance Code when determining and reviewing the remuneration of the Executive Board.

Any conflict of interest in the establishment, implementation and review of the remuneration policy shall be treated by the Supervisory Board in the same way as other conflicts of interest in the person of a Supervisory Board member. The Supervisory Board member concerned is therefore required to disclose any conflict of interest to the Chairman of the Supervisory Board and will not participate in the adoption of resolutions or in the deliberations concerned. Disclosure of any conflicts of interest at an early stage ensures that the decisions of the Supervisory Board are not influenced by inappropriate considerations.

In the reporting year, the Executive Board employment contracts in force for the current Executive Board members already complied with the new remuneration policy, with a few divergences as explained above, and will fully comply with this policy as a matter of principle from 2022 onwards. If there will still be any divergences under the current Executive Board employment contracts beyond the current year – this relates only to the continued three-year assessment basis for the consolidated net profit component of long-term variable remuneration in the case of Mr. Rainer Lehmann – the Supervisory Board will examine, in consultation with the Executive Board member concerned, to which extent and, if applicable, from which period onward an adjustment can be made. As long as such divergences continue to exist, these will be presented in the company's Remuneration Report.

VI. Compliance with the Maximum Remuneration Limits for the Executive Board

Under the new remuneration policy, the total remuneration consisting of a fixed salary including fringe benefits, employee benefit expense and the short- and long-term variable remuneration components for a fiscal year – irrespective of whether it is paid in the fiscal year in question or at another time – is limited to a maximum gross amount of €4.5 million for the Executive Board Chairman and €2.25 million for each of the other Executive Board members. The maximum remuneration covers the maximum possible non-performance-related fixed and performance-related variable remuneration components, including employee benefit expense. Benefits in kind granted as fringe benefits are recognized at their value for income tax purposes. Regarding the share-based compensation of the Executive Board Chairman, this compensation paid as part of his maximum remuneration is calculated based on the pro-rated grant value attributable to one year.

For all current Executive Board members, the individual components of their remuneration are already structured so that the total remuneration granted to each respective Executive Board member for a fiscal year – regardless of whether it is paid in the fiscal year in question or at another time – does not exceed the maximum remuneration established in the new remuneration policy. For this purpose, a separate maximum amount is set for each of the variable remuneration components. For short-term variable remuneration with a one-year assessment basis and for the long-term variable component related to the consolidated net profit, this maximum amount is currently 120% of the target amount, and for participation in the phantom stock plan, 250% of the grant value assigned; for the purposes of maximum remuneration, the share-based compensation of the Executive Board Chairman is considered the pro-rated grant value attributable to one year and is thus an amount that is fixed from the outset (see above).

The following table shows the maximum limits for the variable remuneration components and the shares granted. Compliance with the maximum limits for short-term variable remuneration and for the shares granted can be reviewed already for fiscal 2021. For multi-year variable remuneration, compliance with the maximum limits can only be reviewed retroactively as soon as these are vested or phantom stock units are exercised.

	Dr. Joachim Kreuzburg			Dr. René Fáber		
€ in K	Target remuneration	Maximum remuneration	Receipts	Target remuneration	Maximum remuneration	Receipts
Short-term variable remuneration	600	720	720	220	264	264
Long-term variable remuneration						
Consolidated net profit 2021 (3 years)	325	390	-	110	132	-
Phantom stock plan 2021 (exercisable from 2025)	325	813	-	110	275	-
Shares granted	1,000	1,000	1,000	-	-	-

	Rainer Lehmann			John Gerard Mackay		
€ in K	Target remuneration	Maximum remuneration	Receipts	Target remuneration	Maximum remuneration	Receipts
Short-term variable remuneration	275	330	330	220	264	264
Long-term variable remuneration						
Consolidated net profit 2021 (3 years)	193	231	-	110	132	-
Phantom stock plan 2021 (exercisable from 2025)	193	481	-	110	275	-
Shares granted	-	-	-	-	-	-

The amount of the fixed remuneration components and the target and/or grant date amounts of the variable remuneration components for fiscal 2021 were selected for all Executive Board members so that even if the maximum amounts of the variable remuneration components are reached, the total gross amount of fixed and variable remuneration components of each Executive Board member will not exceed the highest sum defined by the maximum remuneration for this reporting year. The following table discloses the maximum achievable amounts of the individual remuneration components for 2021 and clearly shows that the maximum achievable remuneration is below the maximum achievable compensation defined for the Supervisory Board in accordance with Section 87a, Subsection 2, sentence 2, item no. 1 of the German Stock Corporation Law (AktG).

€ in K	Dr. Joachim Kreuzburg	Dr. René Fáber	Rainer Lehmann	John Gerard Mackay
Fixed remuneration	1,000	440	440	440
Fringe benefits	15	13	83	29
Total non-performance-based remuneration	1,015	453	523	469
Variable performance-based remuneration (1 year)	720	264	330	264
Short-term variable remuneration	720	264	330	264
Consolidated net profit (3 years)	390	132	231	132
Phantom stock plan (4-8 years)	813	275	481	275
Long-term variable remuneration	1,203	407	712	407
Shares granted	1000	0	0	0
Other remuneration component	45	45	45	45
Post-employment benefits	333	0	94	84
Maximum achievable remuneration	4,316	1,169	1,705	1,269
Maximum remuneration in accordance with Section 87a, Subsec. 1, sentence 2, no. 1, of the German Stock Corporation Law	4,500	2,250	2,250	2,250

The final review of compliance with the maximum remuneration for fiscal 2021 will be presented in the remuneration report for the fiscal year in which the last long-term remuneration component was vested and/or exercised. As Sartorius did not have any comparable policy for maximum remuneration in the past, no disclosures on compliance with maximum remuneration can be provided for an earlier business year.

2. Remuneration of the Executive Board Members in the Reporting Year

The remuneration granted and owed for active service on the Executive Board by all Executive Board members in 2021 was as €5,750 K compared to €4,831 K in the prior year. The details of the individual remuneration components are described in the following.

Remuneration Granted and Owed to the Executive Board Pursuant to Section 162 of AktG

The following table shows the remuneration granted and owed to the Executive Board in accordance with Section 162 of the German Stock Corporation Law (AktG). Remuneration is deemed to be owed if it is due but has not yet been paid. In this case, remuneration granted is assumed already at the time service is performed and not only at the point in time of payment. The figures stated for variable remuneration components are the amounts "vested" in the respective fiscal year.

	Dr. Joachim Kreuzburg				Dr. René Fáber			
€ in K	2021	in %	2020	in %	2021	in %	2020	in %
Fixed remuneration	1,000	39%	903	41%	440	49%	440	62%
Fringe benefits [1]	15	1%	15	1%	13	1%	13	2%
Total non-performance-based remuneration	1,015	39%	918	42%	453	51%	453	63%
Variable performance-based remuneration (1 year) [2]	720	28%	546	25%	264	30%	261	37%
Consolidated net profit (3 years) [3]	266	10%	218	10%	128	14%	0	0%
Phantom stock plan (4-8 years) [4]	539	21%	520	24%	0	0%	0	0%
Components with a long-term incentive effect	805	31%	738	34%	128	14%	0	0%
Other remuneration component	45	2%	0	0%	45	5%	0	0%
Defined Contribution Plans [5]	0	0%	0	0%	0	0%	0	0%
Total remuneration	2,585	100%	2,202	100%	890	100%	714	100%

	Rainer Lehmann				John Gerard Mackay			
€ in K	2021	in %	2020	in %	2021	in %	2020	in %
Fixed remuneration	440	34%	438	38%	440	44%	440	57%
Fringe benefits [1]	83	6%	76	7%	29	3%	31	4%
Total non-performance-based remuneration	523	41%	514	45%	469	47%	471	61%
Variable performance-based remuneration (1 year) [2]	330	26%	311	27%	264	27%	222	29%
Consolidated net profit (3 years) [3]	128	10%	105	9%	128	13%	0	0%
Phantom stock plan (4-8 years) [4]	259	20%	208	18%	0	0%	0	0%
Components with a long-term incentive effect	387	30%	313	28%	128	13%	0	0%
Other remuneration component	45	4%	0	0%	45	5%	0	0%
Defined Contribution Plans [5]	0	0%	0	0%	84	8%	84	11%
Total remuneration	1,285	100%	1,138	100%	990	100%	777	100%

1 The amounts contributed to D&O insurance totaling €470 K (2019: €205 K) are not included as these refer to the executive bodies of all companies of the Sartorius Group and are not allocated to the individual insurees.
2 Recognized amount corresponds to actual target achievement.
3 Recognized amount corresponds to actual target achievement of the plan In which a fiscal year ended; i.e., for 2021, consolidated net profits for 2019 – 2021 (2020: consolidated net profits for 2018 - 2020).
4 Fair value at the time granted.
5 Payments for a pension plan.

As part of the remuneration component based on the consolidated net profit of three consecutive fiscal years, each Executive Board member receives a partial compensation payment of 50% of his respective target achievement for the first fiscal year under review. Once the total target achievement has been determined after the third fiscal year, final payment is then effected by deducting the particular partial payment already made. The amounts of the partial payments made in total at the end of the reporting year are shown as follows:

€ in K	2021	2020
Balance as of Jan. 1 of a fiscal year	470	375
Partial payments deducted	–190	–185
Partial payments effected	327	280
Balance as of Dec. 31 of a fiscal year	607	470

Remuneration Granted and Owed to Former Executive Board Members

	Reinhard Vogt (until Dec. 31, 2018)		Jörg Pfirrmann (until Feb. 28, 2017)		Other	
€ in K	2021	2020	2021	2020	2021	2020
Phantom stock plan (4-8 years) [1]	336	325	0	114	0	0
Capital payment	0	921	0	0	0	0
Annuity	0	0	0	0	517	501
Total remuneration	336	1,246	0	114	517	501

1 Fair value at the time granted.

3. Disclosures on Share-Based Payments | Phantom Stock Units

	Number of phantom stock units	Price on assignment in €	Fair value when granted on Jan. 1 of the particular year € in K	Fair value at year-end on Dec. 31, 2020 € in K	Fair value at year-end on Dec. 31, 2021 € in K	Paid in fiscal 2021 € in K	Change in value in fiscal 2021 € in K	Status
Dr. Joachim Kreuzburg								
Tranche for fiscal 2017	2,950	70.51	208	520	0	520	0	Paid out in 2021
Tranche for fiscal 2018	2,685	80.32	216	539	539	0	0	exercisable
Tranche for fiscal 2019	1,950	113.78	222	555	555	0	0	Not exercisable
Tranche for fiscal 2020	1,240	190.30	236	401	590	0	189	Not exercisable
Sum of the tranches from the previous years	8,825		882	2,015	1,684	520	189	
Tranche for fiscal 2021	918	354.13	325	0	500	0	175	Not exercisable
Total sum of tranches	9,743		1,207	2,015	2,184	520	364	
Dr. René Fáber								
Tranche for fiscal 2019	934	113.78	106	266	266	0	0	Not exercisable
Tranche for fiscal 2020	578	190.30	110	187	275	0	88	Not exercisable
Sum of the tranches from the previous years	1,512		216	453	541	0	88	
Tranche for fiscal 2021	311	354.13	110	0	169	0	59	Not exercisable
Total sum of tranches	1,823		326	453	710	0	147	
Rainer Lehmann								
Tranche for fiscal 2017	1,182	70.51	83	208	0	208	0	Paid out in 2021
Tranche for fiscal 2018	1,289	80.32	104	259	259	0	0	exercisable
Tranche for fiscal 2019	934	113.78	106	266	266	0	0	Not exercisable
Tranche for fiscal 2020	936	190.30	178	303	445	0	142	Not exercisable
Sum of the tranches from the previous years	4,341		471	1,036	970	208	142	
Tranche for fiscal 2021	544	354.13	193	0	297	0	104	Not exercisable
Total sum of tranches	4,885		664	1,036	1,267	208	246	
John Gerard Mackay								
Tranche for fiscal 2019	934	113.78	106	266	266	0	0	Not exercisable
Tranche for fiscal 2020	578	190.30	110	187	275	0	88	Not exercisable
Sum of the tranches from the previous years	1,512		216	453	541	0	88	
Tranche for fiscal 2021	311	354.13	110	0	169	0	59	Not exercisable
Total sum of tranches	1,823		326	453	710	0	147	
Reinhard Vogt (until Dec. 31, 2018)								
Tranche for fiscal 2017	1,844	70.51	130	325	0	325	0	Paid out in 2021
Tranche for fiscal 2018	1,673	80.32	134	336	336	0	0	exercisable
Tranche for fiscal 2019	661	113.78	75	188	188	0	0	Not exercisable
Sum of the tranches from the previous years	4,178		339	849	524	325	0	
Jörg Pfirrmann (until Feb. 28, 2017)								
Tranche for fiscal 2017	644	70.51	45	114	0	114	0	Paid out in 2021
Sum of the tranches from the previous years	644		45	114	0	114	0	

4. Pension Commitments

The projected pension payments, the present value of pension obligations and service cost are shown in the following table:

	Projected pension payment	Present value of the obligation (IFRS)		Service cost (IFRS)	
€ in K	p.a.	Dec. 31, 2021	Dec. 31, 2020	2021	2020
Dr. Joachim Kreuzburg	266	4,941	4,943	177	187
Rainer Lehmann	84	391	192	0	0
	350	5,332	5,135	177	187

Furthermore, in 2021, a pension contribution of €138 K was expensed for Dr. Joachim Kreuzburg (2020: €124 K) and of €91 K for Mr. Rainer Lehmann (2020: €62 K).

5. Comparative Table

€ in K	2021	Change in %	2020
Managing Board Members			
Dr. Joachim Kreuzburg	2,585	17%	2,202
Dr. René Fáber	890	25%	714
Rainer Lehmann	1,285	13%	1,138
John Gerard Mackay	990	27%	777
Former Managing Board Members			
Reinhard Vogt	336	–73%	1,246
Jörg Pfirrmann	0	–100%	114
Other	517	3%	501
Earnings Development			
Underlying EBITDA in millions of €	1,175	70%	692
Net profit of Sartorius AG in millions of €	41	–64%	113
Average Remuneration of Employees			
Group employees in Germany only	89	1%	88

In the presentation of the average remuneration of employees, all people employed by the German companies of the Sartorius Group (except for the Executive Board members) were included. If employees simultaneously receive remuneration as members of the Supervisory Board of Sartorius AG, this compensation was not considered. Remuneration of part-time employees was extrapolated to full-time equivalents.

6. Main Features of the Remuneration Plan for the Supervisory Board

The remuneration for Supervisory Board members is defined in the Articles of Association of Sartorius AG and comprises fixed remuneration, meeting attendance fees and reimbursement of out-of-pocket expenses. Members serving as chairperson and vice chairperson of the Supervisory Board receive higher fixed remuneration.

Members and chairpersons of Supervisory Board committees, except for those of Nomination Committee or the committee pursuant to Section 27, Subsection 3, of the German Codetermination Law (MitBestG), are entitled to receive additional annual fixed amounts and meeting attendance fees as well as reimbursement of their out-of-pocket expenses.

Besides this, the members of the Supervisory Board are included in a Directors and Officers (D&O) liability insurance policy taken out for members of management bodies. The premiums of this insurance are paid by Sartorius Aktiengesellschaft. This D&O insurance policy covers the legal liability arising from Supervisory Board activities and is taken out at standard market terms and conditions.

In line with prevailing market practice at listed companies in Germany, the remuneration of Supervisory Board members is strictly fixed compensation along with meeting attendance fees and does not include any performance-related components. The Executive Board and Supervisory Board are of the opinion that strictly fixed remuneration for Supervisory Board members is best suited to strengthening the independence of the Supervisory Board and fulfilling the latter’s advisory and supervisory functions, which are to be performed independently of the company's success. The amount and structure of Supervisory Board remuneration ensure that the company is able to attract qualified candidates for membership in the company's Supervisory Board; in this way, Supervisory Board remuneration helps sustainably promote the business strategy and the long-term development of the company. The existing remuneration policy especially takes into account Recommendation G.17 and the Suggestion G.18, sentence 1, of the German Corporate Governance Code in the current version as amended.

7. Remuneration Granted and Owed to the Supervisory Board Members

€ in K	2021	2020
Remuneration for the Supervisory Board Members		
Total remuneration	1,057	1,049
Fixed remuneration	675	675
Compensation for committee work	121	120
Meeting attendance fee	192	186
Total remuneration for the Sartorius Stedim Biotech subgroup	69	68
Remuneration from Sartorius Stedim Biotech S.A., Aubagne	69	68

€ in K	2021	2020
Dr. Lothar Kappich (Chairman)		
Total remuneration	261	262
Fixed remuneration	135	135
Compensation for committee work	33	33
Meeting attendance fee	24	26
Remuneration from Sartorius Stedim Biotech S.A., Aubagne	69	68

€ in K	2021	2020
Manfred Zaffke (Vice Chairman) [1]		
Total remuneration	137	140
Fixed remuneration	90	90
Compensation for committee work	24	24
Meeting attendance fee	23	26

€ in K	2021	2020
Annette Becker [1]		
Total remuneration	70	54
Fixed remuneration	45	45
Compensation for committee work	8	0
Meeting attendance fee	17	9

€ in K	2021	2020
Prof. David Raymond Ebsworth, Ph.D.		
Total remuneration	57	56
Fixed remuneration	45	45
Meeting attendance fee	12	11

€ in K	2021	2020
Dr. Daniela Favoccia		
Total remuneration	57	56
Fixed remuneration	45	45
Meeting attendance fee	12	11

€ in K	2021	2020
Petra Kirchhoff		
Total remuneration	57	56
Fixed remuneration	45	45
Meeting attendance fee	12	11

€ in K	2021	2020
Karoline Kleinschmidt [1]		
Total remuneration	57	56
Fixed remuneration	45	45
Meeting attendance fee	12	11

€ in K	2021	2020
Dietmar Müller (as of May 16, 2020) [1]		
Total remuneration	75	31
Fixed remuneration	45	28
Compensation for committee work	13	0
Meeting attendance fee	17	3

€ in K	2021	2020
Ilke Hildegard Panzer		
Total remuneration	57	56
Fixed remuneration	45	45
Meeting attendance fee	12	11

€ in K	2021	2020
Hermann Jens Ritzau (as of Mar. 1, 2021) [1]		
Total remuneration	49	0
Fixed remuneration	38	0
Meeting attendance fee	11	0

€ in K	2021	2020
Prof. Dr. Thomas Scheper		
Total remuneration	56	56
Fixed remuneration	45	45
Meeting attendance fee	11	11

€ in K	2021	2020
Prof. Dr. Klaus Rüdiger Trützschler		
Total remuneration	108	108
Fixed remuneration	45	45
Compensation for committee work	39	39
Meeting attendance fee	24	24

Former Supervisory Board Members

€ in K	2021	2020
Uwe Bretthauer (until Feb. 28, 2021) [1]		
Total remuneration	16	95
Fixed remuneration	7	45
Compensation for committee work	4	24
Meeting attendance fee	5	26

€ in K	2021	2020
Michael Dohrmann (until May 15, 2020) [1]		
Total remuneration	0	23
Fixed remuneration	0	17
Meeting attendance fee	0	6

1 The employee representatives declared that they donate their Supervisory Board remuneration to the foundation Hans-Böckler-Stiftung according to the guidelines of the German Trade Union Association.

Beyond their Supervisory Board remuneration, the employee representatives who are employees within the Sartorius Group receive compensation that is not related to their service on the Supervisory Board.

8. Comparative Table

€ in K	2021	Change in %	2020
Supervisory Board Members			
Dr. Lothar Kappich (Chairman)	261	0%	262
Manfred Zaffke (Vice Chairman)	137	–2%	140
Annette Becker	70	30%	54
Prof. David Raymond Ebsworth, Ph.D.	57	2%	56
Dr. Daniela Favoccia	57	2%	56
Petra Kirchhoff	57	2%	56
Karoline Kleinschmidt	57	2%	56
Dietmar Müller (as of May 16, 2020)	75	142%	31
Ilke Hildegard Panzer	57	2%	56
Hermann Jens Ritzau (as of Mar. 1, 2021)	49		
Prof. Dr. Thomas Scheper	56	0%	56
Prof. Dr. Klaus Rüdiger Trützschler	108	0%	108
Former Supervisory Board Members			
Uwe Bretthauer (until Feb. 28, 2021)	16	–83%	95
Michael Dohrmann (until May 15, 2020)	0	–100%	23
Earnings Development			
Underlying EBITDA in millions of €	1,175	70%	692
Net profit of Sartorius AG in millions of €	41	–64%	113
Average Remuneration of Employees			
Group employees in Germany only	89	1%	88

In the presentation of the average remuneration of employees, all people employed by the German companies of the Sartorius Group (except for the Executive Board members) were included. If employees simultaneously receive remuneration as members of the Supervisory Board of Sartorius AG, this compensation was not considered. Remuneration of part-time employees was extrapolated to full-time equivalents.

Non-financial Group statement

Responsibility at Sartorius

Innovation & Social Contribution

Employees

Responsible Business Practices

Environment

Responsibility at Sartorius

Sustainability Management

Sartorius is an internationally leading partner to the biopharmaceutical industry. With our technologies, we help researchers and engineers achieve faster, easier progress in the life sciences and bioprocess technology, thus enabling the development of new and better treatments and vaccines and affordable medical care.

Many people in industrialized countries suffer from diseases for which there is as yet no effective treatment. These include cancer, dementia and autoimmune diseases as well as congenital metabolic disorders and infectious diseases. At the same time, many diseases that would have proved fatal just a few generations ago can now be cured or treated effectively. Combined with declining birth rates, this has led to an aging society in industrialized countries where people are expected to remain fit and healthy for as long as possible.

In developing and emerging countries, the availability and affordability of healthcare is well below the standards in industrialized nations: more than half the world's population has either no or inadequate access to medical care. For every second child, initial immunization is an unachievable goal, and it is estimated that 1.5 million children under the age of five die from diseases from which they could be protected with vaccinations.

The purpose of our business is to help our customers develop and manufacture biotechnology-based drugs and vaccines and, in doing so, enable the development and safe production of vaccines and biopharmaceutical medicines to treat serious and, in some cases, rare diseases. The United Nations' sustainability goal 'Good Health and Well-Being' is thus an integral part of our core business.

As a company with a tradition spanning 150 years, sustainability is firmly embedded at many levels in our business. To us, it means operating responsibly over the long term – with respect to customers, employees, investors, business partners and society as a whole. Likewise, it entails handling natural resources responsibly. Sustainable action also means remaining agile and constantly asking ourselves how we can respond to the changing world and make a positive contribution. This concerns the continued development of our business activities just as much as living up to our corporate responsibilities.

As in the previous year, 2021 was once again dominated by the coronavirus pandemic. The pandemic is a challenge facing society as a whole; at the same time, it highlights how Sartorius directly contributes to the goal of "healthy lives and well-being for all at all ages:" with its products and process knowledge, Sartorius is involved in many of the worldwide vaccine projects to combat coronavirus.

Optimization of processes and methods throughout the entire value chain can also make a contribution towards sustainability – this mainly includes the consideration of sustainability in procurement, product development and production. Our product portfolio includes consumables such as filters, pipette tips, cell culture media and bags. These sterile products for use in biopharmaceutical research and development have significant benefits compared to reusable products. Nevertheless, we see potential to reduce our use of natural resources in this area.

In addition, we do believe it is important that we play our part in helping to reduce global warming. In the future, we aim to continue growing strongly while substantially lowering our carbon footprint. To this end, we once again compiled a detailed breakdown of our carbon footprint and refined our targets in the year under review. In our opinion, it is appropriate to focus on CO_2 emission intensity, as this indicator enables a comparison of the CO_2 emissions of various companies as well as with economic and international indicators and targets. Correspondingly, our new climate target is to reduce CO_2 emission intensity, which is defined as the ratio of

CO_2 emissions to revenue. With our new target, which is to lower this indicator by an average of roughly 10 percent per annum, we are exceeding the current ambitions of the European Union and the Science Based Targets initiative.

Stakeholder Involvement

Sartorius engages in a very close, ongoing dialog with its stakeholders, using this exchange to regularly discuss aspects of sustainability.

We define stakeholders as those persons, companies, institutions and interest groups that are able to influence the success of the Sartorius Group or are affected by the actions of our company. In particular, such stakeholders are our customers, employees, investors, suppliers and business partners, as well as neighboring companies and local residents.

In the reporting year, we had intensive discussions about the subject of sustainability with our customers. During many meetings, we discussed the expectations of our customers and continued cooperation projects. In the reporting year, Sartorius strengthened its dialog with its own staff with two major surveys involving employees.

The results of the stakeholder dialog were discussed in the Corporate Sustainability Steering Committee and, in this way, are taken into account in Sartorius' strategy process. This Committee, which is chaired by the CEO, meet at least once a year.

Sartorius has its performance with respect to its environmental, social and governance-related business practices gauged by means of various sustainability analyses and ratings. In the EcoVadis Rating, Sartorius achieved silver level and, with this score, positioned itself among the best 17 percent of the companies assessed. Sartorius was given an A in the MSCI Sustainability Rating. Sartorius was also given a CDP score of B–.

About the Non-Financial Group Statement

Sartorius defined non-financial indicators that enable assessment of the impact of its business activities on stakeholders, the environment and society.

This non-financial Group statement was prepared in accordance with the disclosures set out in Section 315b and 315c in conjunction with Sections 289c to 289e of the German Commercial Code (HGB). Pursuant to Section 315b, Subsection 1, Sentence 3 HGB, reference is also made to individual non-financial aspects contained elsewhere in the Group Management Report.

Orientation for the non-financial Group statement is provided by the reporting framework developed by the Global Reporting Initiative (GRI) – the Sustainability Reporting Standards – so that we can ensure transparency and comparability.

The reporting period for the non-financial Group statement is the fiscal year, the reporting cycle is annual. Unless otherwise indicated, the employee-related data covers all Sartorius companies. Unless otherwise specified, the environmental indicators encompass all our production companies, representing 77% of the total headcount.

This non-financial Group statement was audited by KPMG AG Wirtschaftsprüfungsgesellschaft in the form of an audit with limited assurance. The submission of this non-financial Group statement releases our subgroup Sartorius Stedim Biotech S.A. from the obligation of creating its own non-financial statement.

Organizational Profile

We refer to the Group Management Report, pages 24 to 39, sections “Structure and Management of the Group”, "Group Business Development”, and “Business Model, Strategy and Goals”. We also refer to the Opportunity and Risk Report on page 70 and the Notes on page 157.

Materiality Analysis

Our considerations with regard to materiality are based on the term used in the European CSR Directive Implementation Act (CSR-RUG). We also take our stakeholders’ considerations into account.

We conducted comprehensive materiality analyses in 2017 and 2018 to determine the material topics for the business activities of the Sartorius Group.

For reporting in the year under review, we assessed discussions with customers and investors, taking into account the views of managers in Sales, Product Marketing, Research & Development, Production, Purchasing, Quality Management, Legal & Compliance and Corporate Communications. The Executive Board confirmed the results of this process.

In terms of changes in the material topics compared to the previous year, the aspects “water and effluents” and “waste” were also identified as material. As such, the material topics for Sartorius are as follows:

1. Advance innovation and, as a result, contribute to improved medical care and promote employment and good working conditions through growth.

2. Find and retain employees, protect their health and safety and promote their continuous development.

3. Responsible corporate governance and compliance and respect for human rights throughout the supply chain.

4. Protect the environment by reducing emissions, optimizing the use of water, reducing waste and assuming responsibility for our products throughout their life cycles.

Risk Management

Sartorius is responsible towards its employees, the environment, and society. This responsibility must be perceived throughout the entire supply chain. In particular, the company’s actions with regard to environmental matters, employee and social aspects, anti-corruption and bribery issues and respect for human rights can lead to non-financial risks. This is why Sartorius strives to consider risks that have an impact on the company, but what is more, to examine the risks Sartorius poses for its environment with its business operations as well.

Risks can occur especially in connection with the manufacture of sterile products used in bioprocesses, since this can require the use of plastics, energy and solvents. Non-financial risks can also occur through the procurement of materials. This is why, when Sartorius is choosing partners and suppliers, it pays particular attention that statutory and ethical rules are complied with.

In the reporting year, no non-financial risks were identified that would have to be reported according to CSR-RUG.

The requirements defined in the German CSR Directive Implementation Act (CSR-RUG) are the basis of the ESG risk analysis. Sartorius aims for the greatest possible integration of risk management processes in the company.

Reporting pursuant to the EU Taxonomy

Developed by the European Commission, the European Green Deal seeks to facilitate the transition to a competitive, resource-efficient and climate-neutral European economy. It is a central plank of the European Union's climate policy and encompasses a variety of measures in the areas of energy supply, transport, retail, industry, agriculture and forestry, and financial market regulation.

The EU taxonomy has been established as part of the European Green Deal. The taxonomy aims to direct private capital toward sustainable investments. The idea is that a common classification system for environmentally sustainable activities across all sectors will boost transparency and standardization, thereby limiting the risk of greenwashing. The mandatory reporting requirements introduced for publicly traded companies in this area are designed to enable recipients to compare the sustainability of different business models.

Six environmental objectives are set out in Article 9 of the Taxonomy Regulation:

- Climate change mitigation
- Climate change adaptation
- The sustainable use and protection of water and marine resources
- The transition to a circular economy
- Pollution prevention and control
- The protection and restoration of biodiversity and ecosystems

In respect of the 2021 reporting year, disclosures are only made at this stage in respect of the first two objectives, "climate change mitigation" and "climate change adaptation." On the basis of relief granted by the EU, the first step is to identify taxonomy-eligible economic activities for these objectives and then report on the shares of total revenue and capital/operating expenditure accounted for by these activities. Eligible for taxonomy are those economic activities that are stipulated and described in the delegated act and that are relevant for the stated environmental objectives.

The calculation of the relevant indicators is performed on the basis of the International Financial Reporting Standards applicable to the consolidated financial statements and includes all fully consolidated Group companies. Total revenue corresponds to the value stated for the financial year in question on the statement of profit or loss. Total capital expenditure is defined as the sum total of gross additions to tangible and intangible assets in the reporting year. Acquired goodwill is not included. Total operating expenditure includes all direct, non-capitalized costs in connection with research and development, renovation measures, short-term leases and maintenance and repair.

As the acts published so far in relation to the taxonomy regulation only include activities that are particularly relevant to climate change mitigation and climate change adaptation, this spectrum only includes the business activities of a limited section of the economy. With the regulation as it stands, no revenue-relevant economic activities were classified for Sartorius and no taxonomy-eligible revenue was identified. When the reporting obligation is extended to include the remaining environmental objectives, additional economic activities will be included within the taxonomy regulation. Depending on the specific provisions of the regulation, it may be the case that taxonomy-eligible revenues are identified for Sartorius in the financial years ahead.

The analysis of our economic activities in the area of capital expenditure has come to the conclusion that some 60% of our investments are in non-taxonomy-eligible economic activities and some 40% are in taxonomy-eligible economic activities. This indicator shows the share of the aforementioned capital expenditure (additions to assets) that relates to the acquisition of products and services from a taxonomy-eligible economic activity and that is listed in Annex I (material contribution to climate change mitigation) of the delegated regulation. This primarily relates to construction activities for the purpose of expanding our production capacity at multiple locations.

Furthermore, non-taxonomy-eligible operating expenses account for 82% of our total operating expenses, with taxonomy-eligible operating expenses accounting for 18% of total operating expenses. This indicator shows the share of the aforementioned operating expenses that relates to the acquisition of products and services from a taxonomy-eligible economic activity and that is listed in Annex I (material contribution to climate change mitigation) of the delegated regulation. In particular, this category includes renovation and maintenance costs in the area of buildings, along with leasing expenses. The majority of the reportable total operating expenses in the 2021 financial year related to research and development expenses that are not currently eligible for taxonomy.

Starting in the 2022 financial year, the relevant economic activities and reporting obligations will be extended. As described above, all six environmental objectives stipulated in the taxonomy regulation will then become relevant. The taxonomy eligibility of the economic activities identified also needs to be verified. This is done using the so-called "technical screening criteria," which comprise three components: firstly, the activities must make a substantive contribution to one of the environmental objectives. Secondly, they must do no significant harm (DNSH) to any of the other environmental objectives. Thirdly, must meet minimum safeguards (pursuant to the OECD Guidelines on Multinational Enterprise, the UN Guiding Principles on Business and Human Rights, the ILO core labor standards and the International Bill of Human Rights). Analysis is still ongoing on the impacts of these changes on our future reporting.

The FAQ published by the EU Commission on February 2, 2022 on the interpretation of certain legal provisions of the delegated act on disclosure requirements under article 8 of the EU Taxonomy Regulation is not taken into account in this non-financial group statement due to its short-term nature.

Sustainable Development Goals

Sartorius is a signatory to the United Nations Global Compact and supports the 2030 agenda for a sustainable global economy.

The United Nations developed 17 Sustainable Development Goals (SDGs). The governments of all member states have adopted the SDGs; however, their success is largely dependent on the actions and cooperation of everyone involved – especially on the commitment of the private sector. Sartorius accepts this responsibility.

To determine which SDGs are related to Sartorius' business activities, we also conducted a comprehensive materiality analysis in 2018. Sartorius regards nine SDGs as important in connection with its business operations.

Good health and well-being is - according to the United Nations - considered one of the basic human rights and is a major indicator of sustainable development. It is our mission and our core business to help improve the health of more people. Consequently, good health and well-being are at the heart of our attempts to achieve more sustainability and our corporate purpose directly addresses one of the Sustainable Development Goals.

Quality education empowers people to improve their political, social and economic situations. According to the United Nations it is a basic human right and a requirement for sustainable development. We contribute to this by continuously training our employees and through many forms of support for young scientists.

Gender equality is not only a UN human right, it is also a lever for economic growth. It gives women better access to education, medical care and financial resources. We support equality in our own business activities and expect our business partners to behave accordingly.

Access to clean drinking water was in 2008 recognized as a human right by the United Nations. Within the scope of our product stewardship, we try to keep the water consumption of our products as low as possible throughout their entire life cycle. We also make sure that our business partners also handle water and wastewater responsibly.

Decent work and economic growth are an urgent sustainability goal, as more than 60% of all workers worldwide do not have an employment contract and fewer than 45% of all workers are employed on a full-time, permanent basis. Bad working conditions are often associated with poverty, discrimination and inequality and mainly affect groups of people such as women, people with a disability, young people and migrants. Therefore, at all process stages, we make sure that no human rights are endangered at any point within our supply chain.

Industry, innovation and infrastructure: this SDG aims to expand scientific research in all countries throughout the world. While Sartorius does not have a direct influence on the areas of infrastructure or sustainable industrialization, it does contribute in a wide variety of ways to achieve this innovation goal. By having our production sites serve as centers of competence, we develop scientific expertise at many sites across the globe. Our promotion of young people helps us spread and network the scientific basis worldwide and, as a result, strengthen future innovation activities.

Responsible consumption and production means, among other things, the transition to a circular economy. Sterile plastic products are a key component of Sartorius' product portfolio – for a good reason: the properties of these products are beneficial for the patients at the end of the supply chain, for the environment and for the basic availability and development of innovative medical care. At the same time, single-use products inevitably raise the question of the product's end of life. We are addressing this issue and considering the end of life of our products as well as their overall ecological footprint.

Action to combat climate change is taken within the company and also in our supply chain. Human-induced climate change is one of the greatest challenges of our time. It requires action from everyone concerned, especially the private sector. A key issue is to reduce emissions of CO_2 and other greenhouse gases. We accept this responsibility within the scope of our climate strategy.

Partnerships to achieve aims are a standard approach for Sartorius. We especially strengthen our innovation activities through partnerships and cooperation agreements. Achieving sustainability targets requires a cooperation approach because they concern the entire supply chain and success can be achieved only through cooperation with customers, suppliers, contractual partners and science.

Innovation & Social Contribution

Why it's important

Our corporate mission is to promote scientific progress in the life sciences, which in turn supports the development of new vaccines, more effective therapies and affordable medical care. In the year under review, as in the previous year, the importance of this mission for society as a whole was underlined by the biotechnology sector's contribution towards fighting the Covid-19 pandemic.

The biopharmaceutical market is rapidly developing – it is an area in which scientific breakthroughs leading to new therapies occur at a high rate. At the same time, it still takes about ten years to develop a new pharmaceutical drug and this remains cost-intensive. Our aim is to help our biopharmaceutical customers develop and produce biopharmaceuticals more efficiently.

From day one of its incorporation, Sartorius has worked to maintain an open exchange with the scientific community and, in this way, has driven forward scientific insights and precisely tailored product development. Our goal is to promote scientific thinking and working in society, creating a broader basis for future research and development.

Our approach

In collaboration with expert scientific groups worldwide, the company's research and development activities are aimed at making a contribution so that new active pharmaceutical ingredients are discovered faster and drugs can be produced efficiently. In this way, we want to bring about benefits for society, support sustainable development and, at the same time, strengthen the company's growth.

The innovation activities of the Sartorius Group are based on three pillars: first, specialized in-house product development, second, research cooperation agreements with partners such as scientific institutions and, third, integration of complementary technologies through acquisitions. While product development is assigned to the respective board members, Corporate Research works across the different divisions under the control of the CEO.

Sartorius is involved in many research partnerships covering a wide range of subjects. Forms of collaboration vary from single cooperation agreements to partnerships with institutes and scientific facilities. Both of these make up about 40% of the cooperation agreements. Sartorius also carries out research work in consortia, to which the company contributes its own scientific findings.

Often, new approaches arise from the interdisciplinary collaboration of various experts. Because of this, our approach is to bring experts from science startups and industry together and encourage networking and the sharing of ideas. This is conducive to the generation of new and creative ideas and thus supports scientific progress.

Supporting young scientists is important to us, as this creates the basis for scientific progress in the future.

Our performance

In past years, technologies from Sartorius have been used in the development and production of vaccines to combat various diseases, such as Ebola, Zika and H1N1. In the reporting year, the company's products and process knowledge made a significant contribution towards fighting the Covid-19 pandemic: Sartorius is involved in most vaccine projects throughout the world.

In accordance with its innovation concept, Sartorius strengthened its position with acquisitions during the year under review. Details about these acquisitions and corresponding expansion of the product portfolio and service spectrum can be found on pages 25 ff of the Group Management Report. Pages 33 ff of the Group Management Report contain information about our research and development activities.

By expanding its research cooperation agreements, Sartorius supports the development and production of biopharmaceuticals worldwide and, hence, improves the availability of innovative medical care in the long term. We also seek to improve the sustainability of our products through cooperation agreements. More information about product stewardship can be found in the Environment section from page 144.

In the year under review, Sartorius also engaged in various partnerships and cooperations, both with other companies and with scientific institutions.

A partnership between Sartorius and RoosterBio – a provider of cell banks, media and bioprocess systems – aims to combine technologies and tools in a way that facilitates the faster, more effective and more cost-efficient development of stem cells and therapies. The two companies wish to harness the data from the partnership to provide shared learning and development resources for the growing cell and gene therapy sector.

In tandem with BRAIN Biotech AG, headquartered in Germany, Sartorius is researching and adapting the pioneering CRISPR–Cas genome editing nuclease for specific applications in life sciences. Genome editing enables targeted and pinpoint insertion, deletion and modification within the genome of a living organism. In terms of biopharmaceuticals, these genetic scissors could pave the way for new therapies, thereby increasing the chances of a cure for many different illnesses, such as cancer, neurodegenerative diseases, and hereditary diseases.

Sartorius has entered into a partnership with McMaster University in Hamilton, Canada, with the aim of improving the production process for antibody- and virus-based treatments for illnesses such as COVID-19, cancer and genetic disorders. Initially scheduled to run for four years, this partnership intends to generate highly effective research that will make treatments available on a wider scale and innovative medications more affordable.

Sartorius supports the Penn State University, where it is helping the Sartorius Cell Culture Facility become a reality. As the twelfth core facility of the Huck Institutes of the Life Sciences, this laboratory is part of a collaborative biotechnology ecosystem. These facilities are available to researchers from across Penn State, as well as other academic and commercial researchers. They not only contain equipment that is effectively out of reach for smaller laboratories on account of its complexity and cost level, but also offer the expertise required to operate such equipment.

In partnership with the French 3D Innovation Lab program, a technology platform for innovations in bioscience and health care, the Université de Lyon and Sartorius will set up a shared 3D bioprinting laboratory. Sartorius will provide expertise and equipment, e.g. automated high-throughput bioreactor systems, high-speed virus quantification devices, and in-depth knowledge of polymer science in terms of health-care applications. Technology will make it possible to develop systems for the bioproduction of therapeutic agents based on the 3D bioprinting of cell tissue.

Live-cell imaging using artificial intelligence (AI) can help to convert large quantities of visual data into biological insights in an automated process. In order to develop more precise AI models, Sartorius has instigated the "Cell Instance Segmentation Challenge" on Kaggle, the world's largest online community for data scientists and machine learning experts. As part of this project, more than 1,700 data scientists are working together to help researchers gain better insights from their experiments. Ultimately, this could lead to new treatments for millions of people with certain conditions.

In the year under review, Sartorius also initiated the LifeScience Xplained | Sartorius Award for New Communication with a prize of €10,000. The 2021 winner received the award in recognition of the creative and entertaining videos on his YouTube channel "M.E.G.A.," where he shares his knowledge of molecular biology in an engaging and easy-to-understand way.

Employees

Finding and Retaining Talented Staff

Why it's important

Sartorius is growing strongly. We continually gain talented and well-qualified employees and build their loyalty to ensure the success of the company in the future as well. In the process, one particular challenge all over the world is to recruit experienced specialists for the company. Currently, 13,832[1] employees contribute to Sartorius' success. Continuing professional development, assumption of responsibility and opportunities to advance within the company are important for our employees' satisfaction. These competences safeguard their employability and open up new professional prospects for them.

As a globally operating company, we do business in many different regions and markets. Sartorius employees from 110 countries work together. The interplay of a variety of perspectives and experiences helps us understand our customers better, develop tailored solutions and remain competitive in a global economy. We believe that a working environment of mutual trust, appreciation and respect brings the best work results and increases our employees' motivation and creativity as well as their loyalty.

Our approach

To acquire personnel, our approach is to focus on the things that are important for existing and potential employees and make them known throughout the world. According to our analysis, all of them are factors that are likely to create trust in the future: the company's brand leadership, its sales growth and margin development, its internationality and innovation activities and – last but not least – the individual's opportunities for development within the company. A meaningful mission and the perceptible assumption of social responsibility are also important for many job applicants.

Sartorius has hired 4,381 new employees since January 2021. On account of rapid growth, the previous onboarding process was optimized in order to induct new employees quickly and efficiently. Effective onboarding is designed to ensure that new employees quickly feel included within the Sartorius team so that they can make a positive contribution from day one.

We strive to offer our employees good working conditions to encourage them to apply their skills in the best possible manner. The approaches that we pursue throughout the Group are defined in our policy on work practices and social standards. To improve the accuracy of its measures to create good working conditions, Sartorius conducts two global employee surveys each year. Known as "Pulse Checks," these surveys are conducted each spring and each fall, addressing a range of topics such as employees' perception of the corporate and leadership culture, of their own workplace and work satisfaction in general. All employees are asked to suggest improvements. By virtue of this regular and systematic feedback on leadership culture and

1 The following employee figures include all employees of the Sartorius Group except for apprentices, interns, permanent absent employees and employees in the leave-of-absence phase of partial retirement. Numbers are reported as head counts.

working conditions, executives and the HR department can respond swiftly and initiate any necessary improvement measures. We believe there is considerable potential in discussing the results within individual teams and jointly devising suggested improvements.

Annual performance reviews between employees and their managers also provide a forum for discussing performance, targets and individual development opportunities. In the year under review, the performance development process was conducted digitally with the support of the system. This approach improves the consistency and transparency of the process in terms of setting and agreeing expectations for each HR development cycle; it also makes it possible to agree individual development plans for employees that foster their continued development.

Our employees should be able to develop personally and professionally throughout their professional lives. We firmly believe that all employees have their own talents and that they can contribute these talents in a variety of useful ways. We have therefore expanded our learning opportunities to include digital self-study offerings accessible to all employees and have added online seminars to the portfolio in order to be able to offer a broader selection of content.

In our view, ensuring effective leadership at all levels of the organization is central to supporting our further growth ambitions. In 2021, we focused on top-level employees and executives and will further expand the scope in 2022.

To create the same opportunities for people regardless of their life situations, we have installed a flexible work scheduling model at many of our companies. Employees are often able to take advantage of flextime, part-time and teleworking options.

In addition to flexible work schedules, our response to the need for work-life balance includes child care opportunities in Göttingen. Here, for example, there are offers for children during school vacations, and a day care center is available close to the company on the Sartorius Campus. As an inclusive day care center, it is also open to children with disabilities. It's part of our corporate culture that fathers also take family leave at Sartorius.

Measures that promote equal opportunity in our company include the creation of transparency on salary structures. The majority of salaries at the German companies are linked to the rates agreed with the IG Metall trade union, with some paid in accordance with rates established for IG Bergbau, Chemie, Energie. The remuneration paid to employees in France and Austria is also based on trade union rates. Using the union rates makes our remuneration more transparent.

Works councils or other legally mandated bodies represent the interests of the workforce. In Germany, there is also a Group works council comprising members of the local works councils at all operating companies.

Our performance

To us, education is a valuable asset, and we consider it part of our corporate responsibility to support it and make it accessible within our sphere of influence.

During the reporting year, 167,600 hours were invested in training measures – on average 12.2 training hours per employee[1].

Average Training Hours by Region and Gender[1, 2]

	EMEA	Americas	Asia | Pacific	Total
Women	11.4	13.7	16.0	12.5
Men	11.3	13.7	13.2	12.1
Total	11.3	13.7	14.2	12.2

1 Reports for 2021.
2 Companies acquired during the year are not included and, in accordance with the reporting guidelines, are only reported in the next reporting year. Companies that were consolidated last year report in full this year.

Over the past five years, Sartorius has recruited 10,447 new employees. At the end of the reporting year, women made up 39.3% of the total workforce, which is a slight increase over the previous year.

In the reporting year, 7.0% or 973 people worked part-time at the Sartorius Group, 372 more than in 2020; most of them are in Germany.

New Hires by Region, Gender and Age Group[1, 2]

	EMEA	Americas	Asia | Pacific	Total
Women	1,043	524	250	1,817
≤ 29 years	558	226	107	891
30 - 49 years	416	219	142	777
≥ 50 years	69	79	1	149
Men	1,564	616	384	2,564
≤ 29 years	687	266	156	1,109
30 - 49 years	758	263	222	1,243
≥ 50 years	119	87	6	212
Total	2,607	1,140	634	4,381

1 Reports for 2021.
2 Employee figures are shown as headcount.

The success of our measures to create a positive working environment is reflected in permanently low attrition rates. Excluding expired fixed-term contracts, Sartorius had an attrition rate of 8.4% in the reporting year, or 1.3 percentage points above the already low level of the prior year.

As a result of the consistently high number of new hires, the average seniority decreased slightly. In 2021, about 60% of all employees had been with Sartorius for fewer than five years, while around a seventh had been with the company for 15 years or more.

1 Companies acquired during the year are not included and, in accordance with the reporting guidelines, are only reported in the next reporting year. Companies that were consolidated last year report in full this year.

Fluctuation by Region, Gender and Age Group[1, 2, 3]

	EMEA	Americas	Asia / Pacific	Total
Women	321	116	87	524
≤ 29 years	158	28	32	218
30 - 49 years	109	53	52	214
≥ 50 years	54	35	3	92
Men	371	126	145	642
≤ 29 years	142	17	32	191
30 - 49 years	148	64	105	317
≥ 50 years	81	45	8	134
Total	692	242	232	1,166

1 Reports for 2021.
2 Employee figures are shown as headcount.
3 Without expired fixed term contracts.

Due to the significance for the development of the company, the number of employees at Sartorius is very relevant and is reported regularly by management. More information about "Employees" can be found in the Group Management Report on page 48.

Occupational Health and Safety

Why it's important

Our employees' safety is our responsibility. The health of our employees is also important to us as a company, which is why we offer support in the form of a variety of preventative health care offers.

As in the previous year, the reporting year was shaped by the Covid-19 pandemic, which created particular demands on the organization of workplace health and safety. The existence of a solid occupational safety organization proved to be a substantial benefit in overcoming the resulting challenges.

Our approach

Sartorius has high safety standards to minimize job-related medical conditions, risks to health, and potential causes of industrial accidents. The basic principles and core policies on occupational safety and health protection are defined throughout the Sartorius Group in its corporate policy on workplace safety and health. Occupational safety and the preservation and promotion of the good health of all employees are very important to Sartorius, and management actively encourages them.

Planned, mandatory employee training on topics of occupational health and safety and environmental protection ensure that our staff members recognize risks and avoid them accordingly. Sartorius analyzes all accidents regularly and derives accident prevention measures from them that can also be used for other sites. At our local Group locations, work safety committees confer regularly to discuss measures that promote health and prevent work-related accidents, and inform management of the results of their analysis.

At the Aubagne site, for instance, a cross-unit team works to improve occupational safety and reduce work-related accidents. Since employee behavior plays a key role in many of the work-related accidents, in addition to making technical improvements the team plans to raise awareness with regard to safety among employees.

More than 1,000 employees – most of them from areas with a higher risk potential – have already taken part in training sessions since the new workshops to raise safety awareness were initiated in 2020. In addition, first aiders took part in a full-day training course to minimize risks. Workshops are offered especially to managers to prepare them so that they can improve safety management in their teams.

The Group's corporate health management policy addresses both the physical and psycho-social elements of health to enhance employee performance and motivation, ensure their employability and reduce illness-related costs. Most sites have an in-house medical service. In addition, an external provider is on hand to offer psychological help on any work-related and indeed personal matter. Staff can reach the service via a hotline.

One of our two companies in Beijing, one of our companies in Shanghai and one of our two companies in Bengaluru are certified in accordance with ISO 45001.

Employees from external companies also work for Sartorius, for example, cleaning staff and construction companies. Their safety is also important to us. This is why contractors' employees receive occupational safety instructions before they begin their work. These instructions specifically mention how incidents and accidents can be reported.

During the Covid-19 pandemic, two considerations especially shaped our actions: first, protecting the health of our more than 13,000 employees. Second, maintaining our business operations, on the one hand, to be able to support our customers and, on the other, to ensure our own financial stability. In view of the fact that many of our customers are involved in the development and production of vaccines against the coronavirus, Sartorius has a special social responsibility. It is therefore not an option to reduce personnel in production in order to improve infection protection or to shut down parts of our operations. On the contrary, production was actually expanded.

Our well-established occupational safety processes put us in a position where we could respond quickly and extensively to these special challenges during the Covid-19 pandemic. A crisis team comprising members from different units and the Executive Board works on a corporate level to monitor and assess the situation constantly and introduce appropriate measures if necessary. Several teams also work on a local level.

To protect employees, social distancing rules were put in place at a very early stage and business trips were almost completely stopped. Face masks and visors are provided at the sites.

In conjunction with local vaccination centers, Sartorius has already administered more than 7,000 coronavirus vaccinations.

Our performance

In comparison to the previous year, the number of recordable work-related injuries increased marginally. Given the significant increase in the number of hours worked, this represents a positive development that is also reflected in the relative frequency of work-related injuries, which fell. Due to the pandemic, employees mostly worked from home. However, work in production and logistics increased during the reporting year. There were no accidents with fatalities or other serious outcomes at any of our sites.

Sartorius already received awards at several sites for its safety concept during the Covid-19 pandemic in 2020. Sartorius was the first company in Tunisia to get the Apave Certification Safe & Clean Label for its actions to protect the health and safety of its employees during the pandemic. The site in Bangalore was also commended for its safety concept: the Confederation of Indian Industries (CII) awarded 'Gold' for the measures.

Work-Related Injuries[1, 2]

	2021	2020
Recordable work-related injuries (employees)	151	145
Relative frequency of work-related injuries per 1,000,000 theoretical working hours (employees)	6.3	8.2
Work-related injuries with a serious outcome[3]	0	0
Fatal occupational accidents	0	0

1 Companies acquired during the year are not included and, in accordance with the reporting guidelines, are only reported in the next reporting year. Companies that were consolidated last year report in full this year.
2 The following employee figures include all employees of the Sartorius Group except for apprentices, interns, permanent absent employees and employees in partial retirement. Employee figures are shown as headcount.
3 An accident with a serious outcome is an accident in which the injured person is not rehabilitated at all or not until six months after the accident.

Responsible Business Practices

Compliance

Why it's important

We regard compliance with applicable laws as self-evident. Beyond this, we have set ourselves the standard of managing our company with integrity.

We are committed to upholding internationally recognized human and labor rights as a basis of our worldwide business operations. A significant task in this regard is to create a common understanding of fair working conditions – at all our sites and in the supply chain.

Our approach

Sartorius conducts its business in compliance with globally accepted ethical standards and applicable national legal requirements. The German Corporate Governance Code defines requirements for management boards and supervisory boards including their interaction with regard to transparency, accounting and auditing and the conduct of annual general meetings. Legal Affairs & Compliance reports to the CEO and informs the Supervisory Board and the Audit Committee. Sartorius follows the rules and recommendations of the German Corporate Governance Code in its current version of December 16, 2019, with the exceptions stipulated in the current Declaration of Compliance.

We intend to ensure that our Supervisory and Executive Board members, management and employees comply with all legal regulations and codes, and act according to our internal guidelines. The Legal Affairs & Compliance department is responsible for legal consulting, internal auditing, data protection, anti-corruption, customs and export control.

A dedicated team has the task of implementing and enforcing all Group compliance topics. The Sartorius Code of Conduct defines the requirements we place on our employees with respect to responsible conduct. The code helps employees act ethically and in accordance with the law in their daily work. In everything they do, employees are required to ask themselves the following questions: Are my actions legal? Does my conduct correspond to our values and guidelines? Is it free of personal interests (that are not covered by labor-law regulations)? Will it stand up to public scrutiny? The Code of Conduct covers compliance with international social and environmental standards, general rules of conduct and dealing with conflicts of interest.

The Anti-Corruption Code forms the basis for raising employee awareness about corruption risks. It is also a guideline, instruction manual and aid in taking the necessary action to both prevent and fight corruption at specific companies or in specific sectors. An anti-corruption officer has been appointed by Group management as a contact person for corruption prevention. This officer pursues his or her duties independently.

We ensure that our employees are familiar with the Anti-Corruption Code and the Code of Conduct by asking all employees worldwide every year to take part in an online training course and complete a test at the end of it. The course teaches employees how to deal with ethically or legally problematic situations.

A complaint system ensures that employees and external third parties can report cases of damaging conduct, such as corruption, discrimination or sexual harassment. The compliance team can be contacted face-to-face, via a telephone hotline, the department's electronic mailbox or – in the case of anonymous reports – the whistleblower system. The relevant contact options are listed on the intranet and are thus published company-wide. They are also available on the company's website and can thus be accessed by external persons concerned.

A Global Regulatory Affairs Committee – comprising representatives from Compliance, Regulatory Affairs, Quality, Product Development, Procurement, EHS, Corporate Sustainability and others – meets regularly, monitors new legislative initiatives on an interdepartmental basis and puts corresponding structures in place within the company.

Our performance

During the period under review, 9,341 employees from 35 countries completed training on the Anti-Corruption Code and 9,143 employees from 35 countries completed training on the Code of Conduct. The hours spent on training amounted to 4,571 for the Code of Conduct and 4,670 for the Anti-Corruption Code. Compliance training courses are currently available in German, English, French and Chinese.

No significant fines or non-monetary penalties resulting from violations of laws or regulations were imposed in the reporting year. Two suspected cases of corruption were reported, one of which is still being investigated and one of which has already been deemed unsubstantiated/unproven.

Two suspected cases of discrimination were reported during the period under review. No cases of discrimination were determined during the reporting period.

Supply Chain

Why it's important

Respect for human rights, the maintenance of high environmental standards and good, safe and fair working conditions for the production of our products is important to us, and apply to sites outside our own production as well. With more than 8,000 suppliers in more than 40 countries and a purchasing volume that corresponds to about 40% of our sales revenue[1], it is obvious that our upstream supply chain is important for us to implement these goals.

The assumption of responsibility in global supply chains is also governed by a growing number of laws and requirements. In particular, the German Act on Corporate Due Diligence in Supply Chains, which was passed by the German parliament in July 2021, seeks to improve the international human rights situation by setting out requirements for the responsible management of supply chains. This Act comes into effect for German-based companies with more than 3,000 employees on January 1, 2023.

1 Revenue and purchasing volume in 2021.

Moreover, the value chains for pharmaceuticals are very sensitive and are the focus of many stakeholders. In particular, patients at the end of the supply chain are dependent on their medications being available and safe at all times.

Our approach

Since January 2020, we have been verifying suppliers' compliance with our sustainability requirements via an external evidence-based ESG assessment, as well as in-house ESG quick checks. In the year under review, we have been working to set up a comprehensive risk management system and design new processes in order to be able to meet and document the requirements of the new Supply Chain Act in the near future, but by no later than 2023.

Our Code of Conduct for Business Partners provides the basis for collaboration with our business partners throughout the Group. Our requirements with regard to the environment, social matters and governance are defined in the Code. Since December 2019, acknowledgment of the Code of Conduct is part of the acceptance process for new suppliers. In 2020, we began systematically reviewing whether our existing suppliers have acknowledged the Code and, if not, asking them to do so.

For suppliers who are very relevant for our business processes and/or a high purchasing volume, we work together with the external sustainability assessment platform EcoVadis. The external ESG assessment is based on a self-assessment, a review of the associated documents and information from external sources. EcoVadis reviews 21 indicators in the areas of environment, labor and human rights, ethics and sustainable procurement.

Beginning in 2021, Sartorius quality auditors systematically conducted ESG quick checks within the scope of all planned quality audits in the suppliers' production plants. For this purpose, Sartorius put its sustainability requirements into a questionnaire. This will be provided to suppliers before the audit. During on-site auditing of suppliers' production plants, compliance with the requirements of our Code of Conduct for Business Partners is reviewed on the basis of the questionnaire.

The objective of all measures is to initiate actual improvements in the working, social and environmental standards of our suppliers. Sartorius Management is involved in shaping the process via the Corporate Sustainability Steering Committee and is informed about the progress being made.

We do not establish business relationships with suppliers where we see a considerable risk of child, forced or mandatory labor, other breaches of human rights or negative impacts on society, and will end any existing relationships with such suppliers. This procedure is also defined in our new process for sustainability in the supply chain.

During the Covid-19 pandemic, we are focusing on securing our delivery capabilities. This is very important considering the validated production processes of our customers. This is why we manage stocks of raw materials and finished products actively and maintain high levels of safety stock.

Our performance

In 2021, we received 110 valid sustainability assessments on our suppliers from EcoVadis, with 165 further assessments currently being prepared. The current evaluations cover roughly a third of our purchasing volume. In 2021, we spoke to suppliers who refused an EcoVadis assessment or whose assessment has expired.

The ESG quick checks performed by Sartorius itself as part of quality audits were still conducted in the year under review despite the coronavirus pandemic, albeit to a reduced extent, with 107 such quick checks completed as of the end of the reporting year.

Human Rights

Why it's important

The United Nations Guiding Principles on Business and Human Rights clarify the responsibility of states and businesses to protect and respect human rights. The focus is therefore not only on preventing infringements of human rights, but also the positive contribution that a business can make through its activities that promote the protection of human rights.

Sartorius pursues the goal of taking the highest possible level of care to prevent breaches of human rights within its sphere of influence.

Our approach

In line with the UN Guiding Principles on Business and Human Rights, we respect and support the implementation of the values of the International Bill of Human Rights, the OECD Guidelines for Multinational Enterprises and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, by committing ourselves to regard these internationally recognized human rights as relevant for our operations. We respect the laws of the countries in which we operate.

A Policy Statement on Human Rights has been communicated to employees via the intranet since February 2019 and is also available to all stakeholders on the Internet.

Sartorius' Policy Statement on Human Rights is binding on the entire Group and applies worldwide. It requires all employees to observe appropriate, fair, and lawful conduct towards other employees, business partners, and the local community. We expect our business partners, suppliers, customers and cooperation partners to operate their business in line with correspondingly high ethical standards.

Sartorius' Code of Conduct and the Code of Conduct for business partners address the content of Sartorius' Policy Statement on Human Rights and puts it into concrete terms for everyday work. In annual online training courses about Sartorius' Code of Conduct, Sartorius employees strengthen their knowledge of the content and check it in the subsequent online test.

1 Revenue and purchasing volume in 2021.

The complaint system described on page 140 ensures that topics with human rights relevance can be reported – even anonymously if the person so wishes.

Existing processes are continuously reviewed and adapted where necessary. An interdisciplinary working group was established in 2021 in order to fulfill the requirements of the new Duty of Care Act to ensure that human rights are observed in global supply chains.

The Executive Board becomes involved in handling reported incidents on a case-by-case basis.

Our performance

If the company's performance and the success of the concepts in relation to human rights are to be made measurable, it is necessary to define specific quantitative indicators. In this process it is important to consider the influence of factors outside the company’s sphere on the indicators. For example, actions by local government heads could be outside Sartorius’ sphere of influence.

Sartorius has started defining which indicators could be relevant and reports on these in the respective sections. For our approach, we looked at the entire spectrum of human rights, how they are defined in the International Bill of Human Rights and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work and then considered which of these human rights could be influenced relevantly in the context of our business operations. In the next step, we reviewed our existing reporting system for indicators that would be suitable for making this influence visible. We will complete the analysis in the coming year and then consider including more indicators.

In the reporting year, we report on the right to work in the section on “Finding and Retaining Talented Young Staff” and via the indicator “New Hires by Region, Gender and Age Group”. We report on the right to education in the same section via the indicator “Training Hours by Region and Gender”. We report on the right to an achievable maximum level of physical and mental health in the sections “Innovation & Social Contribution” and “Occupational Health and Safety” and via the indicator “Work-Related Injuries”.

A comprehensive report can also be found in the separately published GRI Report. This is more detailed information that is provided voluntarily.

Environment

Energy Consumption and Emissions

Why it's important

Ongoing climate change already poses a genuine threat to life on our planet. Therefore, halting climate change is a challenge for society as a whole. The heads of state and government of European Union member states agreed in December 2020 to reduce internal EU greenhouse gas emissions by at least 55% compared to 1990 levels by 2030. The European Green Deal also sets a target of EU-wide net zero greenhouse gases by 2050.

Measured in CO_2 equivalents, global greenhouse gas emissions amounted to some 50 billion metric tons in 2019. According to statistics provided by the World Health Organization, the health care sector accounted for four to five percent of this figure. With attributable emissions totaling some 450,000[1] metric tons of CO_2 equivalents in 2019, Sartorius makes up a share of about 0.025% of total emissions of the global health care sector and therefore only has a minor influence. Nonetheless, we see it as our duty to contribute to the attainment of climate targets and will make substantial efforts in this regard, both at our sites worldwide and in our value chain.

Our approach

As a leading partner of the biopharmaceutical industry, we contribute to achieving the Sustainable Development Goal number three, "Good Health and Well-Being." In the future, we aim to continue growing strongly while substantially lowering our carbon footprint. In our opinion, it is therefore appropriate to focus on CO_2 emission intensity when formulating emissions targets as this indicator enables a comparison of the CO_2 emissions of various companies as well as with economic and international indicators and targets. Correspondingly, our new climate target is to reduce CO_2 emission intensity. For Sartorius, the CO_2 emission intensity – defined as the emissions volume in relation to revenue – stood at approx. 250 g/€[1] in the base year 2019.

We always seek to set targets that are not only ambitious, but that are also realistic and transparent. In respect of our CO_2 emission intensity, we aim to achieve an average reduction of approx. 10% per annum. As such, we are exceeding the ambitious levels of the European Union and the Science Based Targets initiative, which have set targets of approx. 8.5% and 7% respectively.

In order to achieve this reduction, we are focusing on avoiding emissions and on improving the efficiency of processes associated with relevant emissions. This includes emissions generated at our sites, emissions in the upstream and downstream value chain, and switching to emission-free energy sources wherever possible.

The offsetting of emissions, on the other hand, is currently not an area of emphasis, as we regard an actual reduction as more important.

1 These are own or externally conducted modeling/estimates, which are not based on scientifically founded emission calculations.

Reducing greenhouse gas emissions is a challenge that can only be met through shared endeavors on the part of everyone involved in the value chain, paying due regard to existing interdependencies. When developing our climate targets, it was therefore important to us to create transparency in respect of existing interactions, make any necessary assumptions with care and communicate them openly.

To this end, we once again compiled a detailed breakdown of our carbon footprint as a basis for our targets in the year under review. For consistency reasons, this refined footprint is based on emission data from 2019, the basis year of our current climate strategy. Approximately 10% of the calculated total emissions of roughly 450,000 metric tons of CO_2 equivalents fall within Scopes 1 and 2, i.e. emissions generated directly within the company and emissions from purchased energy such as electricity and gas. The other 90% or so of emissions are generated in the upstream/downstream value chain, meaning that they are either mostly or partly within the sphere of influence of suppliers, transport contractors, and customers. Sartorius is able to influence just under half of these emissions, with the level of influence depending on the individual circumstances concerned.

For companies across all sectors, the calculation of Scope 3 emissions, in particular, is currently subject to fundamental uncertainties and dependent on a series of assumptions and estimates. Ever more accurate calculations by virtue of improved data quality represent a central plank of our approach. This relates not only to information on the carbon footprint of our suppliers, but also on the usage phase of our products and their life cycle end. To ensure comparability of data over time, the ongoing improvements in calculation accuracy may result in retrospective adjustments to reported figures.

Scopes 1 and 2

Emissions in Scope 1 are direct emissions. They result, for instance, from the use of fossil fuels to generate heat and power at our sites, from CO_2-equivalent process emissions (e.g. in membrane production) and from the use of company vehicles. Sartorius aims to virtually eliminate Scope 1 emissions from the use of fossil fuels by 2030. The corresponding measures include the large-scale electrification of heat/cool air generation, the use of gas from renewable sources, the gradual conversion of the vehicle fleet to electric vehicles and efficiency improvements in production, with a resulting drop in energy consumption. A small share of current Scope 1 emissions have to be classed as unavoidable. These process emissions, which are directly linked to essential product characteristics, especially in membrane production, cannot be avoided with technological advancement as it stands, although we already almost always operate closed solvent loops.

We plan to virtually eliminate Scope 2 emissions by 2030. These indirect emissions occur during the generation of purchased energy, particularly electricity. It is planned to meet this target by switching to emission-free energy from renewable sources wherever possible. This intended large-scale reduction of emissions is subject to the proviso of emission-free energy being available at our global sites. Sartorius will endeavor to champion the availability of zero-emission energy and support the relevant partners at the various sites with their provision.

For Scopes 1 and 2, Sartorius aims to achieve an average annual reduction in CO_2 emission intensity of approx. 20% in the period until 2030. This equates to the elimination of some 90% of the emission sources in Scopes 1 and 2 and – despite significant corporate growth – a 50% reduction in associated absolute emissions compared to 2019.

Scope 3

The analysis of Scope 3 emissions is complex and necessitates consideration of numerous interdependencies within the supply chain and requires assumptions to be made. Some 40% of emissions attributable to Sartorius occur in the upstream value chain, i.e. in connection with purchased goods/services and business travel. Some of the ways in which Sartorius is able to influence these emissions include the nature and volume of purchased materials and products, the choice of transport routes and modes of transport, and the number of business trips and their respective itineraries. Emissions can be reduced in the medium term through the selection of suppliers. Sartorius works to support suppliers in the development and implementation of sustainability systems that reduce the CO_2-equivalent emissions intensity in the upstream value chain.

The largest share of emissions attributable to Sartorius – roughly 50% – occurs in the downstream value chain; this includes, among other things, the transportation of our products to customers as part of the products' further use and their disposal at the end of their life cycles. Sartorius can help to lower these emissions, chiefly by means of optimized product and packaging design that improves the products' energy efficiency or facilitates their recycling. However, a large proportion of the emissions in Scope 3 can only be reduced by our customers and transport contractors or in partnership with these actors and/or through a switch to energy from emission-free sources throughout the entire value chain.

Overall, Sartorius aims to reduce Scope 3 emission intensity by about 10% on average per annum in the period until 2030.[1]

Costs of Reducing Emission Intensity

The Sartorius climate strategy is geared toward environmental targets, not economic ones. As such, we aim to use all available levers to reduce emissions, including those whose expected costs exceed current and anticipated CO_2 offset prices. In total, we expect the annual costs of reducing CO_2-equivalent emission intensity to amount to roughly 1% of Group revenue over time. On account of considerable differences in the costs of various measures, coupled with the expected dynamic development as regards the price and availability of certain technologies, materials and energy sources, it is currently not possible to be any more precise in respect of the development of these costs over time.

Relevance to Governance

Starting 2022, CO_2 intensity will be relevant to the governance of the Sartorius Group and will correspondingly form part of management remuneration.

1 When devising this target, Sartorius not only took into account its own expected growth, but also that of customers, suppliers and transport contractors; it also made certain assumptions on the basis of the correspondingly successful emissions reduction and factored in the effect of a globally evolving energy mix. Specifically, our calculations are based on the assumption that the transport sector will, as required by law, reduce its emissions in absolute terms by 40% by 2030, compared to the 2019 level. In respect of our customers in the biopharmaceutical industry, we anticipate an absolute emissions reduction of approx. 50% based on their communicated targets; for suppliers, we calculate this figure at approx. 20%. Furthermore, we have made conservative growth assumptions of some 3% per annum for suppliers, and some 5% per annum for our customers in the biopharmaceutical industry.

Our performance

Sartorius has been recording greenhouse gas emissions in line with the Greenhouse Gas Protocol (GHG) global standard since 2013. Accordingly, in addition to the CO_2 emissions, we take account of all climate-relevant gases and report them in CO_2 equivalents (CO_2eq). Currently, we report direct climate-relevant emissions from our production sites (Scope 1). We also report indirect energy-related emissions resulting from power generation by external energy suppliers (Scope 2). Scope 1 emissions occur through consumption of direct energy sources, such as diesel, fuel oil, natural gas and LPG, and also through process emissions from solvents and refrigerants at our sites in Göttingen and Yauco.

The new CO_2 intensity reduction targets will be used in our planning from Q1 2022. Accordingly, we plan to report the corresponding reductions from the next annual report. We recorded Scope 3 emissions for the purpose of drawing up our new climate strategy. Standardized reporting is expected to follow in 2022.

Our German sites have been using hydroelectric power since the start of the financial year; our French sites have been using green electricity since midway through the year.

Energy Consumption[1]

	2021	2020
Total energy consumption in MWh	162,340	132,065
Direct energy consumption in MWh	59,301	55,444
Electricity consumption from public grid in MWh	50,020	70,951
Certified green electricity (not included above) in MWh	43,743	-
Others in MWh	9,277	5,670

1 Production sites acquired during the year are not counted and, in line with the reporting guideline, will be included in the report next year. This includes the production sites in Bielefeld (Germany) and Freiburg (Germany). Sartorius Stedim Data Analytics (Sweden) is not counted, as it is an IT company that does not produce any goods.

Greenhouse Gases[1]

	2021	2020
Total GHG emissions in t CO_2eq[2,3]	42,506	43,156
Total Scope 1 emissions in t CO_2eq[4]	19,147	15,277
Total Scope 2 emissions in t CO_2eq[5]	23,359	27,880

1 Production sites acquired during the year are not counted and, in line with the reporting guideline, will be included in the report next year. This includes the production sites in Bielefeld (Germany) and Freiburg (Germany). Sartorius Stedim Data Analytics (Sweden) is not counted, as it is an IT company that does not produce any goods.
2 Emissions in t of CO2eq were calculated by using SoFi software supplied by thinkstep. Emission factors from GaBi, Defra and VfU were used for this.
3 Companies are integrated into the environmental report for emissions in accordance with the financial control consolidation approach.
4 Excluding fuel consumption for the company vehicle fleet.
5 Only location-based factors are used to calculate Scope 2 emissions.

Product Stewardship

Why it´s important

Environmental responsibility concerns not just our value creation; it has an impact on our products, too.

Sartorius generates almost two thirds of its sales revenue with sterile products that are used in biopharmaceutical research, where they ensure the safety and efficiency of the processes. While filters are cellulose-based, filter housings, bags and pipette tips are made from polymers. Although biopharmaceutical disposable technology makes up just 0.01% of the annual volume of plastic waste, the continuous market growth increasingly raises the issue of responsible handling of materials in this industry too.

Basically, the production and sale of consumables prompts questions about the product end of life. Increasing customer demands and stricter statutory regulations have also resulted in aspects of the circular economy becoming more important.

The processes involved in manufacturing polymers from crude oil, as well as recycling processes, are also energy-intensive. We therefore regard all product responsibility considerations as being closely linked with our climate strategy.

Our approach

The fact that sterile products are used in the bioprocess represents a crucial ecological benefit, as energy- and water-intensive cleaning processes between production batches are no longer required. As flexible production units take up less space, less energy is also required for the air conditioning units required in the clean room. As a result, the ecological footprint of disposable components is often better than that of reusable stainless steel components. We intend to further optimize the footprint of our products by enhancing the selection and use of materials throughout the value chain. Materials that are designed to be recycled and material flows will play an important role in this regard.

By developing an initiative to reduce plastic use, we are seeking to address the entire value chain: the design of our products and packaging, the associated purchasing of plastic, the plastic waste generated during our own operations and the treatment of our products and packaging at the end of their life cycles.

When developing our products, their functionality and quality are our top priority. Although the use of recycled material in medical products is currently not possible due to quality reasons, it is, for instance, possible to influence the quantity of new plastic used through the design of product dimensions. There is more scope in terms of material selection and dimensions when it comes to packaging design.

Design can also be used to influence the handling of contaminated and non-contaminated products when they reach the end of their life cycle. Alongside the choice of materials, another priority is to simplify sorting and, where applicable, the products´ return to suitable recycling methods. It is important to bear in mind that this step lies within the sphere of responsibility of our customers and their competent recycling agencies, meaning that success can only be achieved through cooperation and joint efforts.

In our in-house production, we focus chiefly on reducing waste and rejects, as well as on the improved sorting of plastic waste and therefore on its improved return to recycling systems.

However, sustainability in biotechnological production is not just concerned with the use and recycling of plastics, but also takes into account the efficiency and productivity of processes. For example, technological innovations enable process optimizations in the production of larger volumes of active pharmaceutical ingredients. Sartorius continuously develops its products with this in mind and helps its customers design their production processes in a more sustainable manner. Sartorius deals intensively with the issue of how its customers can produce more sustainably by modifying the process parameters. For this purpose, Sartorius is involved in the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIMBL) and other bodies.

Our performance

The Sartorius plastic reduction initiative was agreed at the end of October 2020. In the year under review, work was carried out to integrate the targets set within operational divisions. Various projects focused on the reduction of packaging waste, the recycling of production waste and end-of-life-cycle strategies were continued, with new projects initiated.

Sartorius uses ultra-pure plastic film to produce disposable bags for use in bioprocesses. Two of our three film families are suitable for mechanical recycling. At the Aubagne site, waste material produced during bag production is collected, shredded and recycled with the help of external partners.

Water and Effluents

Why it's important

Water is the number-one source of life and the basis for nutrition and a healthy life on earth. One of the central challenges of the 21st century is to provide a growing global population with permanent access to clean water in the volumes necessary to meet its basic needs and enable its social and economic development.

The demand for water will rise by approx. 55% by 2050, with more than two billion people already denied access to clean drinking water. By 2030, 700 million people may be forced to leave their homes due to a lack of water.

Some 19% of available water is required by industry. First and foremost, Sartorius uses water in membrane production and filter assembly.

Our approach

Göttingen and Yauco are the production sites with the highest water consumption, as filter membranes are made there. Larger quantities of water are required, especially for production using the percipitation bath method. Both sites hold ISO 14001 certification. Environmental management covers energy and material consumption, emissions, use of space, waste and effluents. In order to further improve the management of water-related risks and opportunities, the plan is to supplement the ISO standard with an explicit water-related component (ISO 14002-2). Sartorius is happy to get to grips with the expected requirements and proposals in order to implement further effective water-related improvement measures.

Sartorius already attaches considerable importance to the efficient use of water as a resource, as reflected in numerous efficiency measures that are already implemented or planned. Membrane production, for example, largely takes place in closed loops. This means that the water and solvents used are repurified after use. At the main site in Göttingen, the water required for rinsing processes, in particular, is reduced by means of optimized process stages. At the Guxhagen site, a project for the circulation of test water is planned; as a result, it will be possible to store several cubic meters of water on a daily basis, with this water available for reuse.

Apart from optimizing water consumption, Sartorius is also working on the resource-saving sourcing of water. At the Yauco site, a network of roof cisterns collect rainwater that can be used for a variety of applications.

In 2022, Sartorius plans to set out a strategy and concrete targets in order to further optimize the use of water as a resource and therefore further reduce its consumption.

Our performance

Water Withdrawal[1,2]

	2021
Total water withdrawal in Ml	692.67
Surface water in Ml	10.54
Groundwater in Ml	18.98
Third-party water in Ml	663.16

1 Production sites acquired during the year are not counted and, in line with the reporting guideline, will be included in the report next year. This includes the production sites in Bielefeld (Germany) and Freiburg (Germany). Sartorius Stedim Data Analytics (Sweden) is not counted, as it is an IT company that does not produce any goods.
2 This key indicator is reported in the non-financial statement for the first time. The underlying data for individual locations is an estimate.

Water Withdrawal in Areas with Water Stress[1,2,3]

	2021
Total water withdrawal in Ml	483.09
Surface water in Ml	-
Groundwater in Ml	3.00
Third-party water in Ml	480.09

1 Production sites acquired during the year are not counted and, in line with the reporting guideline, will be included in the report next year. This includes the production sites in Bielefeld (Germany) and Freiburg (Germany). Sartorius Stedim Data Analytics (Sweden) is not counted, as it is an IT company that does not produce any goods.
2 Areas of water stress are assesed based on the World Resources Institute "Aqueduct Water Risk Atlas". We consider areas where water stress is classified as high (40-80%) or extremely high (>80%).
3 This key indicator is reported in the non-financial statement for the first time. The underlying data for individual locations is an estimate.

Waste

Why it's important

All kinds waste are generated at any company. This applies particularly to manufacturing companies. The disposal of operating waste is governed by law and handled differently from country to country. As the handling of hazardous and nonhazardous waste has a considerable influence on its release into air, water and soil – and therefore a direct impact on human health and the environment – well-conceived waste management is a high priority.

On top of waste such as plastic, paper and metal, Sartorius' operations – especially in relation to membrane production in Göttingen and Puerto Rico – also generate hazardous waste. In some cases, contaminated waste is produced in the downstream value chain, i.e. the use of our products by customers and users. This applies in particular to the deployment of our products in biopharmaceutical manufacturing processes.

Our approach

In respect of waste management, Sartorius works on continuous improvement through a five-step approach to the waste hierarchy. The aim is to conserve resources, avoid pollution and reduce emissions. Two areas of focus for Sartorius are initiatives on waste prevention and recycling.

Sartorius works on waste prevention by improving production processes, e.g. by reducing production waste. This pertains especially to bag, membrane and candle production. Hazardous waste is mainly generated through the use of solvents in membrane production. While our production processes already largely operate on a closed-loop basis, we nonetheless see opportunities to further reduce hazardous waste in relation to the volumes produced.

Recycling represents a further key component of our waste management. In Aubagne, we mechanically recycle production waste on-site. This material can then be used for new applications by different companies. In the context of laboratory scale production in Göttingen, for instance, aluminum shavings are pressed into pellets, enabling them to be deployed elsewhere. By signing the European Plastics Pact, Sartorius has entered into a voluntary commitment to recycle more plastic waste. In order to live up to this aim, plastic waste is separated by type and sent for recycling, particularly at the Göttingen and Guxhagen sites. In 2021, a total of 91 metric tons was recycled.

We are also fine-tuning the design of our products and packaging in order to minimize waste in the downstream value chain. In addition to product dimensions and the choice of materials, the main focus here is to simplify waste sorting and the interchangeability of system components. As the majority of products are contaminated following their use within the biopharmaceutical process, the requirements in terms of recycling are high. Sartorius is actively working on the continued development of advanced recycling methods and the composition of product materials, the aim being to keep these to a minimum and facilitate recycling for customers. Partnerships with customers and disposal contractors are essential in this regard if feasible solutions are to be found and implemented.

To enable all remaining waste – including waste from administrative units – to be properly separated and disposed of, Sartorius has also introduced a color-coded waste separation system in a pilot project in Göttingen.

Our performance

Generated waste by composition[1, 2]

	2021
Total waste in t	11,295
Of which non-hazardous waste in t	8,060
Of which plastic waste in t	2,087
Of which waste paper in t	1,614
Of which hazardous waste in t	3,235

1 Production sites acquired during the year are not counted and, in line with the reporting guideline, will be included in the report next year. This includes the production sites in Bielefeld (Germany) and Freiburg (Germany). Sartorius Stedim Data Analytics (Sweden) is not counted, as it is an IT company that does not produce any goods.
2 This key indicator is reported in the non-financial statement for the first time. The underlying data for individual locations is an estimate.

Waste by means of disposal[1, 2]

	2021
Recycled waste in t	4,991
Of which non-hazardous waste in t	4,464
Of which hazardous waste in t	527
Disposed of waste[3] in t	6,304
Of which non-hazardous waste in t	3,596
Of which hazardous waste in t	2,708

1 Production sites acquired during the year are not counted and, in line with the reporting guideline, will be included in the report next year. This includes the production sites in Bielefeld (Germany) and Freiburg (Germany). Sartorius Stedim Data Analytics (Sweden) is not counted, as it is an IT company that does not produce any goods.
2 This key indicator is reported in the non-financial statement for the first time. The underlying data for individual locations is an estimate.
3 The disposal methods include incineration with and without energy recovery, landfilling and other means of disposal.

Report of the Independent Auditor

Limited Assurance Report of the Independent Auditor on the Non-financial Group Statement

To the Supervisory Board of Sartorius AG, Göttingen

We have performed an independent limited assurance engagement on the Non-financial Group Statement of Sartorius AG, Göttingen, (hereinafter "Company" or "Sartorius AG") as well as the sections entitled "Structure and Management of the Group" and "Business Model, Strategy and Goals" qualified by way of reference as being part of it (hereinafter "Report") for the period from January 1 to December 31, 2021.

As disclosed in the Non-financial Group Statement, ESG assessments of suppliers were conducted by EcoVadis and ESG quick checks of suppliers' production sites were conducted in 2021 as part of quality audits by Sartorius to ensure compliance with the environmental, social and governance standards. The appropriateness and accuracy of the conclusions from the procedures performed was not part of our limited assurance procedures.

Management's Responsibility

The management of Sartorius AG is responsible for preparing the Non-financial Group Statement in accordance with sections 315b, 315c in conjunction with sections 289b to 289e of the HGB and with Article 8 of the Regulation on the EU Taxonomy (Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (hereinafter "EU Taxonomy Regulation")) and the delegated acts adopted with reference to it, as well as with the Company's own interpretation of the formulations and terms included in the EU Taxonomy Regulation and the delegated acts adopted with reference to it, which are disclosed in the section entitled "Reporting pursuant to the EU Taxonomy."

This responsibility of the Company's management includes the selection and application of appropriate methods to prepare the Non-financial Group Statement and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. Furthermore, the legal representatives are responsible for the internal controls they deem necessary for the preparation of the Non-financial Group Statement that is free from material misstatements, whether due to fraud or error.

The EU Taxonomy Regulation and the delegated acts adopted with reference to it contain formulations and terms that are still subject to substantial interpretation uncertainty and for which clarifying information has not yet been published in every case. For this reason, the management has put its interpretation of the EU Taxonomy Regulation and the delegated acts adopted with reference to it on record in the section entitled "Reporting pursuant to the EU Taxonomy" of the Non-financial Group Statement. The management is responsible for this interpretation being justifiable. Due to the inherent risk that uncertain legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainty.

Auditor's Responsibility

It is our responsibility to express an opinion on the Non-financial Group Statement based on our assurance engagement performed within our limited assurance engagement.

We conducted our assurance engagement in the form of a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" published by the IAASB. Accordingly, we have to plan and perform the assurance engagement in such a way that we obtain limited assurance that no matters have come to our attention that cause us to believe that the Company's Non-financial Group Statement for the period from January 1 to December 31, 2021 has not been prepared, in all material respects, in accordance with sections 315b, 315c in conjunction with 289b to 289e of the HGB and the EU Taxonomy Regulation and the delegated acts adopted with reference to it, as well as management's own interpretation presented in the section entitled "Reporting pursuant to the EU Taxonomy" of the Non-financial Group Statement. We do not, however, issue a separate opinion on each disclosure. In a limited assurance engagement, the assurance procedures are less in scope than in a reasonable assurance engagement and therefore provide substantially less assurance than a reasonable assurance engagement. The choice of assurance procedures is subject to the auditor's professional judgement.

Within the scope of our assurance engagement, we performed, amongst others, the following assurance and other procedures:

- Interviews with employees at Group level who are responsible for the materiality analysis in order to gain an understanding of the processes for identifying material topics and corresponding reporting limits for Sartorius AG
- A risk analysis, including a media search, to identify relevant information on Sartorius AG's sustainability performance in the reporting period
- Assessment of the suitability of internally developed definitions
- Assessment of the design and implementation of systems and processes for the collection, processing and monitoring of disclosures, including data consolidation, on environmental, employee and social matters, respect for human rights, and anti-corruption and bribery matters
- Interviews with employees at Group level who are responsible for determining disclosures on concepts, due diligence processes, results and risks, performing internal control functions and consolidating the disclosures
- Interviews with employees at Group level in order to gain an understanding of the processes for identifying eligible economic activities under the EU Taxonomy
- Inspection of selected internal and external documents
- Analytical procedures for the assessment of data and trends of quantitative disclosures as reported for consolidation at Group level by all sites
- Assessment of local data collection, validation and reporting processes as well as the reliability of reported data based on a sample of the sites in Göttingen and Guxhagen (Germany)
- Assessment of the overall presentation of the disclosures

In determining the disclosures in accordance with Article 8 of the EU Taxonomy Regulation, the management has to interpret uncertain legal terms. Due to the inherent risk that uncertain legal terms may be interpreted differently, the legal conformity of the interpretation and consequently our assurance engagement in this regard are subject to uncertainty.

In our opinion, we obtained sufficient and appropriate evidence to provide a basis for our opinion.

Assuring the Independence and Quality of the Auditor

In performing this engagement, we applied the national legal provisions and professional pronouncements regarding independence and quality assurance, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the quality assurance standard of the German Institute of Public Auditors (Institut der Wirtschaftsprüfer, IDW) regarding quality assurance requirements in audit practice (IDW QS 1).

Opinion

Based on the assurance procedures performed and the evidence obtained, no matters have come to our attention that cause us to believe that the Non-financial Group Statement of Sartorius AG for the period from January 1 to December 31, 2021 has not been prepared, in all material respects, in accordance with sections 315b, 315c in conjunction with 289b to 289e of the HGB and the EU Taxonomy Regulation and the delegated acts adopted with reference to it, as well as the interpretation presented in the section entitled "Reporting pursuant to the EU Taxonomy" of the combined separate Non-financial Group Statement.

Restriction of Use/Clause on General Engagement Terms

This assurance report is addressed to the Supervisory Board of Sartorius AG, Göttingen, and intended for its use only. We therefore assume no responsibility with regard to any third parties.

The engagement in the performance of which we provided the above services for the Supervisory Board of Sartorius AG, Göttingen, was governed by the General Engagement Terms for German Public Auditors and Audit Firms (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (https://www.kpmg.de/bescheinigungen /lib/aab_english.pdf). By reading and using the information contained in this assurance report, each recipient confirms notice of the provisions contained therein including the limitation of our liability as stipulated in No. 9 and accepts the validity of the General Engagement Terms with respect to us.

Hanover, February 8, 2022

KPMG AG
Wirtschaftsprüfungsgesellschaft

Hell ppa. Dollhofer

Consolidated Financial Statements and Notes

03

Statement of Profit or Loss | Other Comprehensive Income

€ in K	Notes	2021	2020
Sales revenue	[9]	3,449,222	2,335,657
Cost of sales	[10]	-1,610,295	-1,129,263
Gross profit on sales		1,838,926	1,206,394
Selling and distribution expenses	[10]	-580,676	-438,720
Research and development expenses	[10]	-139,881	-108,425
General administrative expenses	[10]	-165,045	-125,940
Other operating income and expenses	[11]	-50,170	-77,295
Earnings before interest and taxes (EBIT)		903,155	456,013
Financial income	[12]	29,294	35,854
Financial expenses	[12]	-264,026	-67,120
Financial result		-234,732	-31,267
Profit before tax		668,423	424,746
Income taxes	[13]	-241,445	-125,191
Net profit for the period		426,978	299,555
Attributable to:			
Equity holders of Sartorius AG		318,888	210,095
Non-controlling interest		108,090	89,460
Earnings per share	[14]		
Earnings per ordinary share (€) (basic)		4.66	3.07
Earnings per ordinary share (€) (diluted)		4.66	3.07
Earnings per preference share (€) (basic)		4.67	3.08
Earnings per preference share (€) (diluted)		4.67	3.08

The figures for the 2020 reporting period were restated due to the finalization of the purchase price allocations for the acquisitions of BIA Separations and WaterSep BioSeparations (see Note 8).

The Notes to the Consolidated Financial Statements are an integral part of these statements.

Statement of Comprehensive Income

€ in K	2021	2020
Net profit for the period	426,978	299,555
Cash flow hedges	–23,668	12,179
Of which effective portion of the changes in fair value	–17,165	3,707
Of which reclassified to profit or loss	–6,503	8,472
Income tax on cash flow hedges	7,100	–3,654
Net investment in a foreign operation	38,347	–46,389
Income tax on net investment in a foreign operation	–10,264	12,404
Currency translation differences	85,467	–79,848
Items that may be reclassified to profit or loss, net of tax	96,982	–105,308
Remeasurements of the net defined benefit liability	3,715	–4,942
Income tax on remeasurements of the net defined benefit liability	–1,232	97
Items that will not be reclassified to profit or loss, net of tax	2,483	–4,845
Other comprehensive income after tax	99,465	–110,153
Total comprehensive income	526,443	189,402
Attributable to:		
Equity holders of Sartorius AG	405,763	108,647
Non-controlling interest	120,680	80,755

The figures for the 2020 reporting period were restated due to the finalization of the purchase price allocations for the acquisitions of BIA Separations and WaterSep BioSeparations (see Note 8).

Statement of Financial Position

€ in K	Notes	Dec. 31, 2021	Dec. 31, 2020
Non-current assets			
Goodwill	[15]	1,362,044	1,231,372
Other intangible assets	[15]	1,095,635	991,837
Property, plant and equipment	[16][17]	1,305,823	971,548
Financial assets	[35]	60,848	34,120
Other assets		1,628	1,532
Deferred tax assets	[18]	75,152	45,022
		3,901,130	3,275,431
Current assets			
Inventories	[19]	892,827	557,285
Trade receivables	[29]	423,994	314,260
Other financial assets	[30]	24,947	40,334
Current tax assets		28,951	15,243
Other assets		83,274	78,757
Cash and cash equivalents	[28]	342,809	203,435
		1,796,802	1,209,313
		5,697,932	4,484,744

€ in K	Notes	Dec. 31, 2021	Dec. 31, 2020
Equity			
Equity attributable to Sartorius AG shareholders		1,260,304	1,031,440
Issued capital	[20]	68,416	68,416
Capital reserves	[21]	43,307	41,987
Other reserves and retained earnings	[21]	1,148,581	921,037
Non-controlling interest	[22]	459,892	348,855
		1,720,196	1,380,295
Non-current liabilities			
Pension provisions	[23]	75,403	80,368
Other provisions	[24]	13,310	11,868
Loans and borrowings	[31]	1,649,088	1,826,337
Lease liabilities	[17][31]	88,910	65,549
Other financial liabilities	[32]	421,818	128,857
Deferred tax liabilities	[18]	182,043	120,380
		2,430,572	2,233,359
Current liabilities			
Provisions	[24]	58,386	29,504
Trade payables	[33]	515,041	330,742
Loans and borrowings	[31]	311,327	175,438
Lease liabilities	[17][31]	26,138	20,043
Employee benefits	[26]	153,902	96,268
Other financial liabilities	[34]	168,991	48,706
Current tax liabilities		178,713	87,708
Other liabilities	[25]	134,666	82,682
		1,547,164	871,090
		5,697,932	4,484,744

The figures for the 2020 reporting period were restated due to the finalization of the purchase price allocations for the acquisitions of BIA Separations and WaterSep BioSeparations (see Note 8).

Statement of Cash Flows

€ in K	Notes	2021	2020
Profit before tax		668,423	424,746
Financial result	[12]	234,732	31,267
Depreciation | amortization of intangible and tangible assets	[15][16][17]	231,176	179,998
Gains | losses on disposal of fixed assets		0	137
Change in provisions	[23][24]	29,706	3,906
Change in receivables	[29][30]	-99,142	-59,260
Change in inventories	[19]	-294,410	-114,067
Change in liabilities	[25][33][34]	281,620	162,720
Income taxes paid	[13]	-189,381	-120,052
Other non-cash transactions		3,090	2,130
Cash flow from operating activities		865,814	511,525
Capital expenditures	[15][16]	-407,168	-240,254
Other payments		-20,769	-8,133
Cash flow from investing activities before acquisitions		-427,936	-248,387
Acquisitions of subsidiaries and other business operations	[8]	-141,671	-1,022,150
Cash flow from investing activities		-569,607	-1,270,537
Interest received	[12]	7,391	6,963
Interest paid and other financial charges	[12]	-31,508	-25,032
Dividends paid to:			
- Shareholders of Sartorius AG		-48,233	-24,278
- Non-controlling interest		-17,530	-8,860
Changes in non-controlling interest	[8][22]	-594	-30,473
Loans and borrowings raised	[6][31]	137,039	1,186,040
Loans and borrowings repaid	[6][31]	-211,746	-196,892
Cash flow from financing activities		-165,182	907,467
Change in cash and cash equivalents		131,025	148,455
Cash and cash equivalents at the beginning of the period		203,435	54,441
Changes in scope of consolidation		343	0
Net effect of currency translation on cash and cash equivalents		8,006	539
Cash and cash equivalents at the end of the period	[28]	342,809	203,435

The figures for the 2020 reporting period were restated due to the finalization of the purchase price allocations for the acquisitions of BIA Separations and WaterSep BioSeparations (see Note 8).

Statement of Changes in Equity

€ in K	Issued capital	Capital reserves	Cash flow hedging reserves
Balance at Jan. 1, 2020	68,388	40,691	1,440
Net profit for the period	0	0	0
Cash flow hedges	0	0	9,772
Remeasurements of the net defined benefit liability	0	0	0
Currency translation differences	0	0	0
Net investment in a foreign operation	0	0	0
Tax effects	0	0	–2,931
Other comprehensive income after tax	0	0	6,841
Total comprehensive income	0	0	6,841
Share-based payments	28	1,296	
Dividends			
Issue of treasury shares for the purchase of BIA Separations			
Purchase price liability BI Israel			
Purchase of additional shares in subsidiaries			
Other changes in equity			
Balance at December 31, 2020	68,416	41,987	8,281
Balance at Jan. 1, 2021	68,416	41,987	8,281
Net profit for the period	0	0	0
Cash flow hedges	0	0	–19,078
Remeasurements of the net defined benefit liability	0	0	0
Currency translation differences	0	0	0
Net investment in a foreign operation	0	0	0
Tax effects	0	0	5,723
Other comprehensive income after tax	0	0	–13,355
Total comprehensive income	0	0	–13,355
Share-based payments	0	1,320	
Dividends			
Purchase price liabilities BI Israel / CellGenix			
Change in non-controlling interests			
Other changes in equity			
Balance at December 31, 2021	68,416	43,307	–5,074

The figures for the 2020 reporting period were restated due to the finalization of the purchase price allocations for the acquisitions of BIA Separations and WaterSep BioSeparations (see Note 8).

Pension reserves	Retained earnings	Foreign currency translation reserves	Equity attributable to Sartorius AG shareholders	Non-controlling interest	Total equity
−26,028	710,045	15,814	810,351	282,826	1,093,177
0	210,095	0	210,095	89,460	299,555
0	0	0	9,772	2,407	12,179
−4,071	0	0	−4,071	−870	−4,942
0	0	−70,088	−70,088	−9,760	−79,848
0	−46,389	0	−46,389	0	−46,389
−144	12,404	0	9,329	−482	8,847
−4,216	−33,985	−70,088	−101,448	−8,705	−110,153
−4,216	176,110	−70,088	108,647	80,755	189,402
	0		1,324	0	1,324
	−24,278		−24,278	−8,860	−33,138
	132,725		132,725	0	132,725
	19,800		19,800	0	19,800
	−14,733		−14,733	−8,629	−23,362
	−2,396		−2,396	2,764	368
−30,243	997,273	−54,274	1,031,440	348,855	1,380,295
−30,243	997,273	−54,274	1,031,440	348,855	1,380,295
0	318,888	0	318,888	108,090	426,978
0	0	0	−19,078	−4,590	−23,668
3,131	0	0	3,131	584	3,715
0	0	70,009	70,009	15,458	85,467
0	38,347	0	38,347	0	38,347
−993	−10,264	0	−5,534	1,138	−4,396
2,138	28,083	70,009	86,875	12,590	99,465
2,138	346,971	70,009	405,763	120,680	526,443
	0		1,320	0	1,320
	−48,233		−48,233	−17,530	−65,763
	−130,305		−130,305	−46,212	−176,517
	0		0	54,414	54,414
	319		319	−315	4
−28,105	1,166,025	15,735	1,260,304	459,892	1,720,196

The dividends paid per share are as follows:

	Per share in €	2021 total € in K	Per share in €	2020 total € in K
Dividend for ordinary shares	0.70	23,958	0.35	11,974
Dividend for preference shares	0.71	24,275	0.36	12,303
		48,233		24,278

Notes to the Financial Statements

1. General Information

Sartorius AG is a listed joint stock corporation established in accordance with German law and is the ultimate parent company of the Sartorius Group. The company is recorded in the German Commercial Register of the District Court of Göttingen (HRB 1970) and has its registered office at Otto-Brenner-Str. 20 in Göttingen, Federal Republic of Germany.

The Sartorius Group is a leading international partner of biopharmaceutical research and the industry. With innovative laboratory instruments and consumables, the Group's Lab Products & Services Division (LPS) concentrates on serving the needs of laboratories performing research and quality control at pharma and biopharma companies and those of academic research institutes. The Bioprocess Solutions Division (BPS), with its broad product portfolio focusing on single-use solutions, helps customers manufacture biotech medications and vaccines safely and efficiently.

In accordance with Section 315e (1) of the German Commercial Code (HGB) in conjunction with Article 4 of Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of July 19, 2002 (OJ L243 p. 1), the consolidated financial statements of the Sartorius Group for the year ended December 31, 2021, were prepared in accordance with the IFRS and IFRIC Standards and Interpretations of the International Accounting Standards Board (IASB) as required to be applied by the European Union. These are available on the following website:

https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/financial-reporting_en#ifrs-financial-statements

The consolidated financial statements are prepared in euros. Unless otherwise specified, all amounts are disclosed in thousands of euros (abbreviated as € in K). In some cases, the sums of the figures given in this report may not precisely equal the stated totals, and percentages may not be exact due to rounding. The figures presented for fiscal 2020 for comparative purposes in the notes were restated to the extent necessary due to the finalization of the purchase price allocations for the acquisitions of BIA Separations and WaterSep BioSeparations (see Note 8).

The Executive Board is scheduled to submit the consolidated financial statements to the Supervisory Board on February 10, 2022.

2. Effects of New or Amended Standards

Standards to Be Applied for the First Time in 2021

The following new accounting rules were applicable for the first time and had no material impact on the consolidated financial statements:

- Amendments to IFRS 9, Financial Instruments, IAS 39, Financial Instruments: Recognition and Measurement, IFRS 7, Financial Instruments: Disclosures, IFRS 4, Insurance Contracts, and IFRS 16, Leases, Interest Rate Benchmark Reform (Phase 2)

The amendments concern modifications of financial assets, financial liabilities and lease liabilities as well as hedge accounting and disclosure requirements according to IFRS 7 which relate to the impact of the IBOR reform. The Group is not materially impacted by the IBOR reform.

- Amendments to IFRS 4 Insurance Contracts – deferral of IFRS 9

The amendments are relevant to insurance companies that are not yet applying IFRS 9 and therefore do not impact the Group.

- Amendment to IFRS 16, Leases, regarding Covid-19-related rent concessions after June 30, 2021

The amendment extends the application period of the exemption for lessees regarding the assessment of Covid-19-related debt concession. Lessees do not have to assess whether a Covid-19-related debt concession concerning lease payments which were originally due by June 30, 2022 is a lease modification under IFRS 16. The rent concession therefore does not have to be accounted for as a lease modification. This is a voluntary early application without impact on the Group's consolidated financial statements.

New Standards and Interpretations not yet Applied

The following Standards, Interpretations, and Amendments to Standards were not yet applied to the consolidated financial statements of the reporting year as they had not yet been adopted by the EU or their application was not mandatory for 2021:

Standard | Interpretation	Title	Applicable for financial years from[1]	Endorsement by the EU Commission
IFRS 14	Regulatory Deferral Accounts	January 1, 2016	No
Amendments to IFRS 3, IAS 16 and IAS 37 and amendments to IFRS 1, IFRS 9, IAS 41, and IFRS 16	Minor changes and Annual Improvements to IFRSs 2018 - 2020 Cycle (issued in May 2020)	January 1, 2022	Yes
Amendments to IAS 8	Definition of Accounting Estimates	January 1, 2023	No
Amendments to IAS 1 and IFRS Practice Statement 2	Disclosure of Accounting Policies	January 1, 2023	No
Amendments to IAS 1	Classification of Liabilities as Current or Non-Current	January 1, 2023	No
Amendments to IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	January 1, 2023	No
IFRS 17	Insurance Contracts	January 1, 2023	Yes
Amendments to IFRS 17	Initial Application of IFRS 17 and IFRS 9 – Comparative Information	January 1, 2023	No
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	n/a	No

1 Mandatory application according to EU endorsement or the Standards. The Group does not plan to apply any Standard early.

To date, the Group does not expect the changes to have a material impact on its consolidated financial statements.

3. Significant Accounting Policies

Significant accounting policies are described in the notes in which the respective positions of the consolidated financial statements are further explained if they relate to specific positions. Significant general accounting policies are described below.

Basis of Preparation

The consolidated financial statements of the Group are based on the principle of the historical cost of acquisition, construction, or production, with the exception of items measured at fair value, such as derivative financial instruments or financial liabilities resulting from contingent consideration agreements.

Foreign Currency Translation

Subsidiaries' annual financial statements prepared in foreign currencies have been translated pursuant to IAS 21, The Effects of Changes in Foreign Exchange Rates, in accordance with the concept of functional currency. Foreign subsidiaries are regarded as independent subdivisions of the Sartorius Group. Items in the statement of financial position are translated at the exchange rates on the reporting date. An exception to this is the equity of consolidated subsidiaries, which is translated at historical cost. Income and expense items are converted at average rates. Any translation differences resulting from the use of different exchange rates for items in the statement of financial position and the statement of profit or loss are recognized in the other comprehensive income in shareholders' equity.

In the individual financial statements of the consolidated companies, transactions in foreign currencies are translated into the functional currency of the company at the exchange rate on the date of the transaction. Monetary assets and liabilities denominated in a foreign currency are translated at the closing rate on the reporting date. Gains and losses on foreign currency transactions are recognized in other operating income or expenses. By contrast, currency gains and losses in connection with financing activities, such as loans in a foreign currency, are recognized in the financial result.

For certain defined loans granted on a long-term basis and for which repayment is neither planned nor probable, the Group applies the principle of "net investments in a foreign operation." The foreign currency translation differences resulting from these loans are recognized in other comprehensive income according to IAS 21.32.

The exchange rates for major currencies against the euro were applied as follows:

	Year-end exchange rates		Average annual exchange rates	
	2021	2020	2021	2020
USD	1.13245	1.22785	1.18270	1.14196
GBP	0.83902	0.89808	0.85972	0.88951
CHF	1.03336	1.08198	1.08106	1.07042
JPY	130.36000	126.52000	129.87475	121.80849
SGD	1.52820	1.62260	1.58913	1.57408
KRW	1347.69000	1334.08000	1353.74171	1345.63574
CNY	7.18870	8.03140	7.62740	7.87300

4. Critical Accounting Judgment and Key Sources of Estimation Uncertainty

During the preparation of consolidated financial statements, management uses estimates and assumptions based on their best knowledge of the current situation, including expectations of future developments. However, actual results may differ from these estimates. Therefore, these estimates and assumptions are revised on a regular basis, and the impact of all changes is immediately recognized in the statement of profit or loss for the period.

In addition, Group management exercises its judgment in defining the accounting treatment of specific transactions when the existing standards and interpretations do not explicitly treat the accounting problems concerned.

Significant judgments and estimates are especially relevant to the business combinations described in Note 8 including the contingent consideration liabilities, the values of which may vary due to their complex subsequent accounting at fair value.

Other significant judgments and estimates are described in the notes which provide explanations to the positions of the consolidated financial statements if they relate to specific positions. The general assumptions and estimates primarily concern the following topics:

Covid-19 Pandemic

The economic development of the Group has been very robust during the pandemic. Therefore, no significant revisions were made to accounting estimates and assumptions as a result of the pandemic. However, the general level of uncertainty that is inherent in accounting estimates and assumptions increased as a result of the ongoing Covid-19 pandemic.

In fiscal 2021, the Group again achieved double-digit growth in both revenue and order intake. Furthermore, despite strained supply chains and, to some degree, longer delivery times, the Group did not experience significant difficulties on the supply side, and continuity of production operations has been secured. The biopharma industry, which is of particular relevance for the Group, is largely independent of economic fluctuations. This was demonstrated during the Covid-19 pandemic and is especially true of the BPS Division, a total solutions provider for the biopharma industry, which, in 2021 too, experienced increased demand in connection with the production of coronavirus vaccines and Covid-19 therapeutics. In the reporting period, the LPS Division, which also serves customer segments outside the biopharma industry, achieved significant double-digit growth and benefited, among others, from additional demand for components used for testing for the coronavirus. As expected, the goodwill impairment tests conducted during the reporting period did not reveal any need for impairment (see Note 15).

Impairment of Assets

The carrying amounts of property, plant, and equipment and intangible assets including goodwill are examined to determine whether there is any indication that an asset might be impaired, pursuant to IAS 36, Impairment of Assets. If there is any indication that an asset is impaired, the recoverable amount of the asset is estimated. The recoverable amount of an asset or cash-generating unit is the higher of its fair value – less costs of disposal – and its value in use. If the individual asset’s recoverable amount cannot be estimated, the recoverable amount of the asset’s cash-generating unit (CGU) is estimated.

The calculation of the value in use is generally based on discounted cash flow methods which use cash flow projections of up to five years. These projections take into account past experience and represent management's best estimate about future sales revenue and cost developments. Cash flows after the planning period are extrapolated using individual growth rates. Key assumptions on which management has based its determination of the value in use include estimated growth rates, weighted average cost of capital and tax rates. These estimates can have a material impact on the respective values and ultimately on the amount of any impairment.

Fair Value Measurement

A number of the Group’s accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities, including Level 3 fair values.

If third-party information, such as broker quotes or pricing services, is used to measure fair values, then management assesses the evidence obtained from the third parties to support the conclusion that these valuations meet the requirements of IFRSs, including the level in the fair value hierarchy at which the valuations should be classified.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible.

If the inputs used to measure the fair value of an asset or a liability fall into different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety at the same level of the fair value hierarchy as the lowest-level input that is significant to the entire measurement.

5. Operating Segments

According to IFRS 8, Operating Segments, the identification of reportable operating segments is based on the "management approach"; i.e., the segments are defined in accordance with the internal control and reporting structure of an entity. Therefore, an area of activity is to be considered an operating segment if its business activities may result in revenues and expenses, its operating results are regularly reviewed by the entity's chief operating decision maker (= the Executive Board of Sartorius AG) for the purposes of performance management and resource allocation, and discrete financial information is available in its internal reporting. Consequently, the divisions Bioprocess Solutions (BPS) and Lab Products & Services (LPS) are considered operating segments. Essential criteria for their definition are the products sold in the divisions.

"Underlying EBITDA" is the key performance indicator of the operating segments of the Group, as management uses this performance measure to control the Group and segments. EBITDA corresponds to earnings before interest (financial result), taxes, depreciation, and amortization. "Underlying EBITDA" means EBITDA adjusted for extraordinary items. Extraordinary items are expenses and income in connection with acquisitions, restructuring activities, large Group projects and gains or losses from the disposal of fixed assets and investments which distort the sustainable profitability of a segment.

"Underlying EBITDA" is not a defined performance measure in IFRSs. The Group's definition of underlying EBITDA may not be comparable with similarly titled performance measures and disclosures by other entities.

Apart from that, the recognition and measurement methods for the reportable segments conform to the general Group accounting principles.

For intersegment transactions, internal transfer prices are set at prices corresponding to those that would have been agreed with external third parties in the particular situation and under the given framework conditions. Essentially, these prices are calculated by applying the cost-plus method and the resale price method or a combination of the two methods. The methods for determining the internal transfer prices are documented promptly and updated continuously. The volume of such intersegment transactions is immaterial.

Segment assets and segment liabilities are not reported to the chief operating decision maker on a regular basis and are therefore not part of the segment report.

	Sales revenue		Underlying EBITDA	
€ in K	2021	2020	2021	2020
Bioprocess Solutions	2,727,003	1,782,622	986,277	575,906
Lab Products & Services	722,219	553,035	188,754	116,314
Total	3,449,222	2,335,657	1,175,031	692,220
Reconciliation to the profit before tax				
Depreciation and amortization (excl. extraordinary items)			–231,150	–178,493
Extraordinary items			–40,727	–57,714
Earnings before interest and taxes (EBIT)			903,155	456,013
Financial result			–234,732	–31,267
Profit before tax			668,423	424,746

	Depreciation and amortization	
€ in K	2021	2020
Bioprocess Solutions	–150,550	–108,970
Lab Products & Services	–80,626	–71,028
Total	–231,176	–179,998

Geographical Information

External revenue and non-current assets are regionally distributed as follows:

	Sales revenue		Non-current assets	
€ in K	2021	2020	2021	2020
EMEA	1,411,015	935,078	2,531,478	2,078,058
Of which Germany	317,958	210,205	1,176,648	784,323
Of which France	125,715	96,075	432,766	425,173
Americas	1,141,217	812,212	1,141,837	1,041,770
Of which USA	1,061,711	755,263	1,139,292	1,039,087
Asia | Pacific	896,990	588,368	90,187	74,930
Of which China	378,713	224,198	45,262	32,962
Of which South Korea	161,854	130,325	15,900	14,853
Group	3,449,222	2,335,657	3,763,502	3,194,758

The regional allocation of non-current assets refers to the particular company location; sales revenue is reported according to the customers' location. The non-current assets correspond to property, plant and equipment as well as to intangible assets (including goodwill).

In fiscal 2021 and the prior year, none of our customers accounted for more than 5% of sales revenue.

6. Statement of Cash Flows

The statement of cash flows shows the impact of cash inflows and outflows on the cash and cash equivalents of the Group. The cash flows are classified by operating, investing, and financing activities according to IAS 7, Statement of Cash Flows.

In this context, cash and cash equivalents are assets that can be converted into cash in the short term (generally within three months). The amount disclosed in the statement of cash flows primarily includes cash on hand, bank balances, and similar items; it equals the amount presented in the statement of financial position.

The following non-cash transactions were concluded that are not presented in the statement of cash flows:

- Additions to non-current assets related to leases according to IFRS 16 are presented in Note 17.
- The expenses incurred by granting shares to the CEO and Executive Board Chairman totaled €1,320 K in 2021 and €1,324 K in 2020.
- In connection with the acquisition of BIA Separations in the prior year, one component of the purchase price was transferred in shares of Sartorius Stedim Biotech S.A.. Furthermore, a contingent consideration liability was recognized in the course of the acquisition that has to be settled in shares of Sartorius Stedim Biotech S.A. in the future and is therefore not included in the table below. The value recognized for that liability as of December 31, 2020, was restated as a result of the finalization of the purchase price allocation. For further details, see Note 8.
- In connection with the acquisition of CellGenix GmbH, the holders of the non-controlling interest were granted the right to sell their remaining shares to the Group. Therefore, a financial liability of €176.7 million was recognized at the acquisition date (see Note 8).

Financial liabilities resulting from financing activities changed as follows:

	Balance at Dec. 31, 2019 € in K	Cash flows	Currency effects	Other non-cash changes	Balance at Dec. 31, 2020 € in K
Loans and borrowings	991,094	1,008,876	−41	1,846	2,001,775
Lease liabilities	77,365	−19,729	−3,056	31,011	85,591
Liabilities for the acquisition of non-controlling interests	61,010	0	0	−19,504	41,506
Contingent considerations	0	0	−10	712	702
Total financial liabilities from financing activities	1,129,469	989,147	−3,107	14,064	2,129,574

	Balance at Dec. 31, 2020 € in K	Cash flows	Currency effects	Other non-cash changes	Balance at Dec. 31, 2021 € in K
Loans and borrowings	2,001,775	−50,980	33	9,587	1,960,415
Lease liabilities	85,591	−23,728	3,900	49,285	115,048
Liabilities for the acquisition of non-controlling interests	41,506	0	0	176,517	218,023
Contingent considerations	702	0	136	3,760	4,598
Total financial liabilities from financing activities	2,129,574	−74,708	4,069	239,149	2,298,083

7. Scope of Consolidation

Scope of Consolidated Financial Statements

The consolidated financial statements of Sartorius AG include the annual financial statements of all major companies controlled directly or indirectly via its subsidiaries by Sartorius AG. Under IFRS 10, Consolidated Financial Statements, control exists if the following criteria are met:

- Power, i.e., an investor must have existing rights that give it the current ability to direct the relevant activities of an investee that affect the latter's returns

- Exposure, or rights, to variable returns from the involvement with an investee

- Ability to use power in a way that significantly affects the investor's returns from the investee.

Such investees are included in the consolidated financial statements from the time when Sartorius AG or its subsidiaries acquire such control. They are no longer included as of the time control is lost to an entity outside the Group.

Subsidiaries are included on the basis of their annual financial statements for the same reporting period as the parent company, using uniform Group-wide accounting policies.

All intragroup assets and liabilities, equity, income, expenses, and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

	Ownership in %	Consolidated
Sartorius AG, Göttingen, Germany	Parent company	X
Sartorius Stedim Biotech S.A., Aubagne, France, along with its subsidiaries:	73.8	X

EMEA

Sartorius Stedim Belgium N.V., Brussels, Belgium	100.0	X
Xell AG, Bielefeld, Germany	100.0	X
Sartorius Stedim Biotech GmbH, Göttingen, Germany	100.0	X
Sartorius Stedim Plastics GmbH, Göttingen, Germany	100.0	X
Sartorius Stedim North America Holding GmbH, Göttingen, Germany	100.0	X
Sartorius Stedim Systems GmbH, Guxhagen, Germany	100.0	X
Sartorius CellGenix GmbH, Fribourg i. B., Germany	51.0	X
Metreon Bioproducts GmbH, Fribourg i. B., Germany	100.0	
Sartorius Stedim Cellca GmbH, Ulm, Germany	100.0	X
Sartorius Stedim Nordic Oy, Helsinki, Finland	100.0	X
Sartorius Stedim FMT S.A.S., Aubagne, France	100.0	X
Sartorius Stedim France S.A.S., Aubagne, France	100.0	X
Sartorius Stedim Chromatography Resins S.A.S., Cergy, France	100.0	X
Sartorius Stedim Aseptics S.A.S., Lourdes, France	100.0	X
Sartorius Stedim Ireland Ltd., Dublin, Ireland	100.0	X
Biological Industries Israel Beit Haemek Ltd., Kibbutz Beit Haemek, Israel	70.0	X
Beit Haemek Import and Marketing Agricultural Cooperative Society Ltd., Kibbutz Beit Haemek, Israel	99.0	
Sartorius Stedim Italy S.p.A., Florence, Italy	100.0	X
Sartorius Stedim Netherlands B.V., Amersfoort, Netherlands	100.0	X
Sartorius Stedim Austria GmbH, Vienna, Austria	100.0	X
Sartorius Stedim Poland Sp. z o.o., Kostrzyn, Poland	100.0	X
LLC Sartorius Stedim RUS, St. Petersburg, Russia	100.0	X
Sartorius Stedim Data Analytics AB, Umeå, Sweden	100.0	X
Sartorius Stedim Switzerland AG, Tagelswangen, Switzerland	100.0	X
BIA SEPARATIONS Podjetje za separacijske tehnologije d.o.o., Ajdovščina, Slovenia	100.0	X
Sartorius Stedim Spain S.A., Madrid, Spain	100.0	X
Sartorius Stedim Bioprocess S.A.R.L., M'Hamdia, Tunisia	100.0	X
Sartorius Stedim Hungária Kft., Budapest, Hungary	100.0	X
Sartorius Stedim BioOutsource Ltd., Glasgow, UK	100.0	X
Sartorius Stedim UK Ltd., Epsom, UK	100.0	X
Sartorius Stedim Lab Ltd., Stonehouse, UK	100.0	X
Sartorius Stedim Chromatography Systems Ltd., Royston, UK	100.0	X
TAP Biosystems Group Ltd., Royston, UK	100.0	X
The Automation Partnership Cambridge Ltd., Royston, UK	100.0	X

Americas

Sartorius Stedim Filters Inc., Yauco, Puerto Rico	100.0	X
CellGenix Inc., Wilmington, Delaware, USA	100.0	
WaterSep BioSeparations LLC, Boston, Massachusetts, USA	100.0	X
Sartorius Stedim North America Inc., Dova, Delaware, USA	100.0	X

Asia | Pacific

Sartorius Stedim Australia Pty. Ltd., Dandenong South, Victoria, Australia	100.0	X

Sartorius Stedim Biotech (Beijing) Co. Ltd., Beijing, China	100.0	X
Sartorius Stedim (Shanghai) Trading Co. Ltd., Shanghai, China	100.0	X
Biological Industries Hong Kong Ltd., Kowloon, Hong Kong	100.0	X
Sartorius Stedim India Pvt. Ltd., Bangalore, India	100.0	X
Sartorius Stedim Japan K.K., Tokyo, Japan	100.0	X
Sartorius Stedim Malaysia Sdn. Bhd., Kuala Lumpur, Malaysia	100.0	X
Sartorius Stedim Singapore Pte. Ltd., Singapore, Singapore	100.0	X
Sartorius Korea Biotech Co. Ltd., Seoul, South Korea	69.0	X
Sartorius Korea Operations LLC, Seoul, South Korea	100.0	X
Sartorius Stedim Taiwan Inc., New Taipei City, Taiwan	100.0	X

EMEA

Sartorius Belgium N.V., Brussels, Belgium	100.0	X
Sartorius Weighing Technology GmbH, Göttingen, Germany	100.0	X
Sartorius Corporate Administration GmbH, Göttingen, Germany	100.0	X
SI Weende-Verwaltungs-GmbH, Göttingen, Germany	100.0	X
SIV Weende GmbH & Co. KG, Göttingen, Germany	100.0	X
SI Grone 1-Verwaltungs-GmbH, Göttingen, Germany	100.0	X
SIV Grone 1 GmbH & Co. KG, Göttingen, Germany	100.0	X
SIV Grone 2 GmbH, Göttingen, Germany	100.0	X
SWT Treuhand GmbH, Göttingen, Germany	100.0	X
Sartorius Ventures GmbH, Göttingen, Germany	100.0	X
LabTwin GmbH, Berlin, Germany	94.0	
Life Science Factory gGmbH, Göttingen, Germany	100.0	
Life Science Factory Management GmbH, Göttingen, Germany	100.0	
Life Science Valley GmbH, Göttingen, Deutschland	80.0	
Sartorius Lab Holding GmbH, Göttingen, Germany	100.0	X
Sartorius Lab Instruments GmbH & Co. KG, Göttingen, Germany	100.0	X
Sartorius Biohit Liquid Handling Oy, Helsinki, Finland	100.0	X
Sartorius Nordic Oy, Helsinki, Finland	100.0	X
Sartorius France S.A.S., Dourdan, France	100.0	X
Sartorius Ireland Ltd., Dublin, Ireland	100.0	X
Sartorius Israel Ltd., Kibbutz Beit Haemek, Israel	100.0	X
Sartorius Italy S.r.l., Florence, Italy	100.0	X
Sartorius Netherlands B.V., Amersfoort, Netherlands	100.0	X
Sartorius Austria GmbH, Vienna, Austria	100.0	X
Sartorius Poland Sp. z o.o., Kostrzyn, Poland	100.0	X
LLC Sartogosm, St. Petersburg, Russia	100.0	X
LLC Sartorius RUS, St. Petersburg, Russia	100.0	X
Sartorius Spain S.A., Madrid, Spain	100.0	X
Sartorius South Africa (Pty) Ltd., Midrand, South Africa	100.0	X
Sartorius Hungária Kft., Budapest, Hungary	100.0	X
Essen BioScience Ltd., Royston, UK	100.0	X
Sartorius UK Ltd., Epsom, UK	100.0	X

Americas

Sartorius Argentina S.A., Buenos Aires, Argentina	100.0	X
Sartorius do Brasil Ltda., São Paulo, Brazil	100.0	X
Sartorius Canada Inc., Oakville, Canada	100.0	X
Sartorius de México S.A. de C.V., Tepotzotlán, Mexico	100.0	X

Essen Instruments Inc., Ann Arbor, Michigan, USA	100.0	X
Sartorius BioAnalytical Instruments Inc., Dover, Delaware, USA	100.0	X
Sartorius North America Inc., Dover, Delaware, USA	100.0	X
Sartorius Corporation, Dover, Delaware, Delaware, USA	100.0	X

Asia | Pacific

Sartorius Australia Pty. Ltd., Dandenong South, Victoria, Australia	100.0	X
Sartorius Scientific Instruments (Beijing) Co. Ltd., Beijing, China	100.0	X
Sartorius ForteBio (Shanghai) Co. Ltd., Shanghai, China	100.0	X
Sartorius (Shanghai) Trading Co. Ltd., Shanghai, China	100.0	X
Sartorius Hong Kong Ltd., Kowloon, Hong Kong	100.0	X
Sartorius India Pvt. Ltd., Bangalore, India	100.0	X
Essen BioScience K.K., Tokyo, Japan	100.0	X
Sartorius Japan K.K., Tokyo, Japan	100.0	X
Sartorius Malaysia Sdn. Bhd., Kuala Lumpur, Malaysia	100.0	X
Sartorius Singapore Pte. Ltd., Singapore, Singapore	100.0	X
Sartorius Korea Ltd., Seoul, South Korea	100.0	X
Sartorius (Thailand) Co. Ltd., Bangkok, Thailand [1]	32.7	X
Sartorius Vietnam Co. Ltd., Ho Chi Minh City, Vietnam	100.0	X

1 Sartorius Thailand is included in the scope of consolidation due to contractual agreements (see also Note 22).

The companies marked as "non-consolidated" in the above table were not included in the scope of consolidation because the figures were of minor importance for assessing the actual net worth, financial position, and profitability of the Sartorius Group. The sales revenue and total assets of the non-consolidated companies taken together account for less than 2% of the Group figures. No associates or joint ventures were consolidated; all companies identified by an "X" are fully consolidated.

The following companies were included in the scope of consolidation for the first time in fiscal 2021:

- Sartorius South Africa (Pty) Ltd., Midrand, South Africa
- Sartorius CellGenix GmbH, Freiburg, Germany
- ▪ Xell AG, Bielefeld, Germany
- ▪ Sartorius Korea Operations LLC, Seoul, South Korea

The shares in CellGenix GmbH were acquired on July 1, 2021. The entity was renamed Sartorius CellGenix GmbH in the reporting period. Xell AG was acquired on July 28, 2021. See Note 8 for details on these acquisitions.

The Group obtained control over Sartorius South Africa (Pty) on January 1, 2019. This entity was not consolidated until the reporting period for materiality reasons. Consolidation was applied with effect from January 1, 2021. In the reporting period, the remaining 20% of the shares in that entity were acquired from the owner of the non-controlling interest. Sartorius Korea Operations LLC was established in 2021 and has been strengthening the Group's production network with a site in South Korea.

For materiality reasons, the equity method was not applied to the investments in Distribo GmbH (ownership percentage: 26%) and Curexsys GmbH (22.3%).

8. Business Combinations

Business combinations are accounted for using the acquisition method. The identifiable assets acquired and liabilities assumed by the Group, as well as the consideration transferred are recognized at fair value at the acquisition date. Expenses directly related to business combinations are reported in profit or loss of the period.

Accounting for acquisitions requires certain estimates and assumptions to be made, especially about the fair value of the consideration transferred, as well as the fair values of intangible assets and of the property, plant, and equipment acquired, liabilities assumed at the acquisition date, as well as the useful lives of intangible assets and property, plant, and equipment acquired. Their measurement is largely based on projected cash flows. Differences between the expected and actual cash flows may have a material impact on future Group results.

For significant acquisitions, purchase price allocation is generally carried out with the assistance of independent third-party valuation specialists. The valuations are based on the information available at the acquisition date.

If there is a non-controlling interest in an acquiree subsequent to an acquisition, and the Group is committed to acquiring this remaining interest in the future on the basis of written put options, the Group assesses whether substantially all of the risks and rewards of ownership of this interest had been transferred to the Group by the acquisition date. If this is not the case, the Group discloses a non-controlling interest in the acquiree subsequent to the acquisition. The liability that needs to be recognized for such obligations is initially recognized against retained earnings on the acquisition date. Subsequently, any changes to this liability are recognized directly in equity.

Acquisition of BIA Separations in 2020

On November 2, 2020, the Group acquired 100% of the shares in the Slovenian purification specialist BIA SEPARATIONS Podjetje za separacijske tehnologije d.o.o. ("BIA Separations"). As of the acquisition date, BIA Separation employed around 120 employees at its headquarters in Ajdovščina, Slovenia.

The company develops and manufactures market-leading products for the purification and analysis of large biomolecules, such as viruses, plasmids, and mRNA, which are used in cell and gene therapies and other advanced therapies. It is therefore complementary to the existing product portfolio for biopharma customers, and will be integrated in the Bioprocess Solutions Division. BIA's technology for manufacturing-scale purification is already used in the production of the first commercialized advanced therapeutics. The company also has a strong presence with novel drug candidates that are still in the clinical pipeline. Although this bodes well in terms of potential growth, the timing of this growth is especially uncertain given the ongoing Covid-19 pandemic that already existed on the acquisition date, and the risks inherent in the development of drugs.

Determination of the acquisition-date fair values of the assets acquired and liabilities assumed, as well as of the consideration transferred, was completed in 2021. The following table presents preliminary and final valuations:

	Preliminary purchase price allocation € in K	Final purchase price allocation € in K
Other intangible assets	308,014	237,709
Property, plant and equipment	13,834	13,834
Inventories	3,317	2,646
Trade receivables	1,696	1,696
Other assets	679	679
Cash and cash equivalents	2,176	2,176
Deferred taxes - net	-58,100	-44,614
Other liabilities	-10,074	-10,074
Net assets acquired	261,542	204,052
Purchase price (transferred at acquisition date)	366,891	366,891
Contingent consideration	285,530	90,369
Goodwill	390,879	253,208

The main assets included in other intangible assets are BIA Separations technology for manufacturing-scale purification (€225.4 million) and customer relations (€12.2 million).

The consideration transferred includes a payment of €234.2 million in cash and 405,887 shares in the Group's stock-listed subsidiary Sartorius Stedim Biotech S.A., the fair value of which was measured at €132.7 million as of the acquisition date. In addition, the parties have further agreed on three tranches of earn-out payments based on the sales performance of BIA Separations over the five fiscal years subsequent to the acquisition. Depending on this sales performance, the sellers are entitled to receive additional shares in Sartorius Stedim Biotech S.A. Until its settlement, this additional contingent consideration agreement is classified as a financial liability and measured at fair value through profit or loss at each reporting date. At the acquisition date, the contingent consideration component was finally valued at €90.4 million. This estimate reflects the expected future sales performance and the assumed number of shares to be transferred, as well as the present value of the expected future share prices at the expected settlement dates. The lower end of the bandwidth of possible outcomes of the contingent consideration is zero, while the upper limit cannot be quantified due to settlement in shares.

As of the reporting date on December 31, 2021, the fair value of the contingent consideration liability was measured at €288.2 million. The change since December 31, 2020 (amount based on the final purchase price allocation: €80.6 million) mainly reflects the rise in the share price of Sartorius Stedim Biotech S.A. and strong growth in sales revenues in 2021. Furthermore, the discount rates applied to calculate the present value of the future obligation were adjusted to reflect the market rates at December 31, 2021. The difference of about €207.7 million between the valuation as of December 31, 2020, and the reporting date was recognized in the financial result. The range of possible outcomes of the contingent consideration had changed to the extent of that of the tranche relating to the sales in 2021 (fair value at reporting date: €97.9 million), which is only subject to changes in the share price up to the point where the shares are transferred to the sellers.

The key input parameters for the valuation of the financial liability are the sales revenue expectations for the next few years, as well as the share price of Sartorius Stedim Biotech S.A. at the respective valuation date. The valuation results are less sensitive to realistic changes of other valuation parameters, e.g., the discount rates applied. Assuming 10% higher (lower) sales revenues in each of the remaining relevant years of the plan period would result in an increase in the reportable liability of approximately €32 million (decrease of approximately €28 million). If the share price of Sartorius Stedim Biotech S.A. had been 10% higher (lower) at the reporting date, the liability would have been €29 million higher (€29 million lower). The actual future outcomes may differ from these sensitivities that are determined by changing only the respective key input parameter in isolation.

Expenses of €3.6 million directly attributable to the acquisition were recognized as other expenses in profit or loss. The resulting goodwill represents synergies, such as those arising from BIA Separations' access to the Group's worldwide sales and distribution network, the completion of the Bioprocess Solutions Division's product portfolio, and intangible assets that are not recognized separately; e.g., the know-how of the skilled workforce. Goodwill is not tax-deductible.

Acquisition of WaterSep BioSeparations LLC in 2020

On December 9, 2020, the Group acquired 100% of the shares in the U.S.-based entity WaterSep BioSeparations LLC. The company employed about 15 employees in Marlborough, Massachusetts, USA, at the acquisition date. WaterSep BioSeparations develops, manufactures, and markets hollow-fiber membrane devices and pre-sterilized assemblies for upstream and downstream biopharmaceutical applications. This acquisition is complementary to the Group's portfolio for cell and gene therapy applications, cell harvesting and various solutions for intensified bioprocessing, and will be integrated into the Bioprocess Solutions Division.

Determination of the acquisition-date fair values of the assets acquired and liabilities assumed, as well as the consideration transferred, was completed in 2021. The following table presents preliminary and final valuations:

	Preliminary purchase price allocation € in K	Final purchase price allocation € in K
Other intangible assets	3	8,073
Property, plant and equipment	236	558
Inventories	362	450
Trade receivables	362	362
Other assets	85	85
Cash and cash equivalents	111	111
Other liabilities	-68	-390
Net assets acquired	1,091	9,250
Purchase price (transferred at acquisition date)	22,518	22,518
Contingent consideration	4,887	702
Goodwill	26,313	13,971

The purchase price amounts to €23.2 million, of which €22.5 million was paid in cash. The parties further agreed on an earn-out component, which depends on the future sales revenue in the years from 2021 to 2023 and is due in 2024. This agreement is classified as a financial liability and measured at fair value through profit or loss on each reporting date. The contingent consideration was measured at a fair value of €0.7 million at the acquisition date. On the reporting date of December 31, 2021, the fair value amounted to around €2.6 million as a result of the expectation of higher sales in the remaining earn-out periods. The lower end of the bandwidth of possible outcomes of the contingent consideration is zero; the upper limit is $9 million.

Expenses of €0.7 million directly attributable to the acquisition were recognized as other expenses in profit or loss. The other intangible assets comprise technologies (€6.6 million) and customer relationships (€1.4 million). The resulting goodwill represents synergies, such as those arising from WaterSep BioSeparations' access to the Group's worldwide sales and distribution network, the completion of the Bioprocess Solutions Division's product portfolio, and intangible assets that are not recognized separately; e.g., the know-how of the workforce. Goodwill is tax deductible.

Acquisition of CellGenix GmbH

On July 1, 2021, the Group acquired a majority stake (51% of shares and voting rights) in the reagent manufacturer CellGenix GmbH. The company that is based in Freiburg, Germany, and has a sales subsidiary near the biotechnology hub in Boston, Massachusetts, USA, produces and markets cell culture components, such as GMP-grade growth factors, cytokines, and media for manufacturing cell and gene therapy products. The acquisition is complementary to the Bioprocess Solutions Division. Founded in 1994 at the University Medical Center of Freiburg, CellGenix employed some 70 people at the acquisition date.

The purchase price allocation is as follows:

	Final purchase price allocation € in K
Other intangible assets	102,230
Property, plant and equipment	15,983
Inventories	12,621
Trade receivables	4,599
Other assets	649
Cash and cash equivalents	16,397
Deferred taxes - net	–34,863
Other liabilities	–10,966
Net assets acquired	106,650
Purchase price	112,085
Non-controlling interest	52,259
Goodwill	57,694

The purchase price for the 51% stake in CellGenix GmbH amounted to approx. €112.1 million and was paid in cash. The directly attributable acquisition-related costs totaled €0.6 million and were recognized in other expenses. Non-controlling interests were measured at their proportionate share of the net assets.

The parties further agreed put and call options, according to which the acquisition of an additional 25% of the shares is planned in 2023 and of the remaining 24% stake in 2026. The exercise prices depend on the future sales revenue with CellGenix products. For the obligation to purchase the remaining shares, the Group recognized financial liabilities totaling €176.7 million at the acquisition date. Subsequent to the acquisition, the liabilities are measured at amortized cost according to the effective interest rate method. Any changes are recognized directly in equity. At the reporting date, the liability was measured at €173.8 million. Assuming 10% higher (lower) sales revenues in each of the remaining relevant years of the plan period would result in an increase in the liability to be reported at the reporting date of approximately €8.3 million (decrease of approximately €9.3 million).

The intangible assets recognized separately are related mainly to technologies (€64.4 million), customer relationships (€33.7 million), and brands (€4.2 million). The resulting goodwill reflects synergies, e.g., those realized by the acquiree’s access to the Group’s global sales and distribution network and the combination of the acquired business with the Group’s existing media manufacturing operations, the expansion of the Bioprocess Solutions Division’s product portfolio, and intangible assets that are not recognized separately, such as the acquired workforce. Goodwill is not tax-deductible.

Acquisition of Xell AG

On July 28, 2021, the Group acquired 100% of the shares in the German cell culture specialist Xell AG. The company, which is headquartered in Bielefeld, Germany, employed some 35 employees on the acquisition date and is complementary to the product portfolio of the Bioprocess Solutions Division. Xell AG develops, produces, and markets media and feed supplements for cell cultures, especially for manufacturing viral vectors that are used in gene therapeutics and vaccines. Beyond these media, the company offers various analytical services for characterizing, screening, and quantifying media components, as well as for optimizing media composition.

The purchase price allocation is as follows:

	Final purchase price allocation € in K
Other intangible assets	27,839
Property, plant and equipment	8,063
Inventories	1,077
Trade receivables	529
Other assets	105
Cash and cash equivalents	16
Deferred taxes - net	–9,363
Other liabilities	–5,809
Net assets acquired	22,457
Purchase price (transferred at acquisition date)	48,072
Contingent consideration	1,877
Goodwill	27,492

The purchase price totaled €49.9 million, of which €48.1 million was paid in cash. The parties further agreed two earn-out components, which are due in 2024 and 2026 and depend on future sales revenues in the years 2022 to 2025. This contingent consideration is classified as a financial liability and is measured at fair value through profit or loss at each reporting date. As of the acquisition date, this contingent consideration was measured at €1.9 million. The lower (upper) limit of the bandwith of possible outcomes for this contingent consideration is zero (€25.6 million).

On the reporting date of December 31, 2021, the fair value of the financial liability was measured at €2.0 million. Assuming 10% higher (lower) sales revenues in each of the remaining four years of the plan period would result in an increase in the liability to be reported at the reporting date of approximately €1.4 million (decrease of approximately €0.9 million). The bandwith of possible outcomes was unchanged on December 31, 2021.

The directly attributable acquisition-related costs totaled €0.3 million and were recognized in other expenses. The intangible assets recognized separately are related mainly to technologies (€25.2 million), customer relationships (€1.6 million), and brands (€1.0 million). The resulting goodwill reflects synergies, e.g., those realized by the acquiree's access to the Group's global sales and distribution network and the combination of the acquired business with the Group’s existing cell culture media competencies and capacities, the expansion of the Bioprocess Solutions Division's product portfolio, and intangible assets that are not recognized separately, such as the acquired workforce. Goodwill is not tax-deductible.

Effects of the Acquisitions on the Group's Sales Revenue and Net Result in 2021

Since their first-time consolidation, the companies acquired in 2021 contributed sales revenue of €12.5 million (CellGenix GmbH) and €4.2 million (Xell AG). Excluding one-time items from the purchase price allocations, the impact on the Group's net result is immaterial. If the acquisitions closed in the reporting period had both taken place as of January 1, 2021, sales revenue (net profit) of the Group for 2021 would have amounted to around €3,464.2 million (€425.3 million).

Notes to the Statement of Profit or Loss

9. Sales Revenue

Revenue is recognized according to IFRS 15, Revenue from Contracts with Customers. Revenue is disaggregated into the categories of the "nature of products" and "geographical regions" as shown in the following table. The categorization by "nature of products" corresponds to the reportable segments as the identification of the reportable segments is based in particular on the different products sold. Regional disaggregation of revenue is based on the customers' location.

			2021			2020
€ in K	Group	Bioprocess Solutions	Lab Products & Services	Group	Bioprocess Solutions	Lab Products & Services
Sales revenue	3,449,222	2,727,003	722,219	2,335,657	1,782,622	553,035
EMEA	1,411,015	1,130,489	280,526	935,078	698,476	236,601
Americas	1,141,217	913,052	228,164	812,212	651,268	160,943
Asia | Pacific	896,990	683,462	213,528	588,368	432,878	155,490

The Group produces and sells instruments and consumables as well as related services in its two segments BPS and LPS. The Group satisfies its performance obligations depending on the goods to be transferred and the services promised. Most of the revenues from the sale of products is recognized at the point where the customer obtains control over the goods. Typically, this is when the significant risks and rewards of ownership of the goods are transferred to the customer. Therefore, the point in time may vary depending on the agreement with the individual customer.

For complex products that require installation at the customer's site, revenue is recognized upon formal customer acceptance. To a low extent, revenue is recognized over time in the customer-specific project business. In these cases, revenue is recognized according to project progress, which is measured based on the percentage of costs to date compared to total estimated contract costs. The amount of actual costs incurred to date appropriately reflects the progress and the transfer of control to the customer as the Group has a right to reimbursement of costs to date plus an appropriate margin, if the project is cancelled by the customer without cause. Revenue from services is generally recognized when the services are performed or have been performed. If the services are performed continuously over a period of time, the Group recognizes the related revenue over time. In this case, revenue is generally recognized pro rata in relation to the total contract period. Product sales are typically accompanied by the legally required warranty. Any material extended warranties are accounted for as separate performance obligations.

According to the general payment terms, customer payments are due in the short term, typically within 30 days. To some extent, the Group obtains advance payments, e.g., to avoid credit risks. Therefore, the Group regularly has contract liabilities (payments received on account of orders). In addition, the Group recognizes contract liabilities in connection with service contracts (deferred revenues) when customers pay in advance.

The contracts do typically not contain significant financing components. The Group uses the practical expedient provided by IFRS 15 regarding the existence of a significant financing component. This means that a financing component is only taken into consideration when the length of time between the transfer of goods or services and the receipt of consideration is expected to exceed one year and the effect is material.

The aggregate amount of the transaction price allocated to the performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period amounted to €2,057.7 million (2020: €1,223.9 million). The Group expects that these unsatisfied performance obligations will, for the most part, be satisfied in 2022.

There were no extraordinary changes in the carrying amounts of the contract liabilities and contract assets in the reporting period. Revenue in the amount of €134,010 K was recognized in the reporting period that was included in the contract liability balance at the beginning of the reporting period (2020: 79,234 K).

The balances of trade receivables and contract assets are presented in Note 29. For details on the impairment losses on trade receivables and contract assets recognized in the reporting period, see Note 40. The following table shows the balances of the Group's contract liabilities.

€ in K	Line item in statement of financial position	Carrying amount Dec. 31, 2021	Carrying amount Dec. 31, 2020
Deferred revenue	Other liabilities	73,932	37,400
Payments received on account of orders	Trade payables	232,045	140,931
Total contract liabilities		305,977	178,331

10. Functional Costs

The statement of profit or loss is prepared according to the function of expense method, also known as "cost of sales". The expenses are allocated to the respective functional areas of production, sales and distribution, research and development, as well as to general administration.

Expenses relating to cross-functional initiatives or projects are assigned to the respective functional costs based on an appropriate allocation principle.

The "Cost of sales" item includes the cost of products sold and the cost of merchandise sold. In addition to directly attributable expenses, such as raw materials and supplies, employee benefits expense, and energy expenses, cost of sales also includes overheads that can be attributed to the manufacturing area, and the corresponding depreciation and amortization.

The selling and distribution expenses relate in particular to the costs of the sales organization, distribution, and marketing.

Research and development expenses comprise the cost of research and product and process development, provided they are not capitalized.

The "General administrative expenses" item primarily comprises employee benefits expense and the cost of materials of the general administrative area.

All profit and loss items that cannot be allocated to one of the functional areas mentioned are recognized as other operating income and expenses. These essentially include effects from currency translation, disposal of non-current assets, allowances on trade receivables, and extraordinary income and expenses. Income from grants related to expenses is recognized as other income, when there is reasonable assurance that the conditions associated with the grants will be complied with and the grants will be received.

The total expenses incurred by the functional areas for materials and employee benefits are as follows:

Raw Materials and Supplies

€ in K	2021	2020
Expenses for raw materials and supplies and for purchased goods (incl. changes in inventories)	620,282	439,673
Cost of purchased services	236,917	159,063
	857,199	598,736

Employee benefits can be broken down as follows:

Employee Benefits

€ in K	2021	2020
Wages and salaries	789,483	609,007
Social security	158,342	119,988
Expenses for retirement benefits and pensions	17,687	13,847
	965,511	742,842

11. Other Operating Income and Expenses

€ in K	2021	2020
Currency translation gains	45,878	34,632
Income from the decrease in allowances for bad debts	5,283	3,381
Income from grants	1,717	2,458
Other income	6,375	4,026
Other operating income	59,253	44,496
Extraordinary expenses	−40,727	−57,714
Currency translation losses	−35,333	−32,227
Allowances for bad debts	−4,739	−9,103
Other expenses	−28,624	−22,749
Other operating expenses	−109,423	−121,792
Other operating income and expenses	−50,170	−77,295

The item reported as income from grants discloses the grants for expenses (essentially related to research and development projects), which are recognized as income as soon as there are sufficiently reliable indications that the necessary prerequisites have been met.

The main extraordinary items of fiscal 2020 and 2021 related to integration and acquisition costs as well as various strategic Group projects.

In 2021, currency translation gains include €−6,503 K (2020: €8,472 K) from the reclassification of amounts in relation to hedging relationships that had previously been recognized in equity (see Note 37).

12. Financial Result

€ in K	2021	2020
Interest and similar income	396	414
- of which from affiliated companies	40	135
Income from derivative financial instruments	6,134	11,650
Other financial income	22,764	23,790
Financial income	29,294	35,854
Interest and similar expenses	–26,567	–21,676
Expenses for derivative financial instruments	–5,862	–9,143
Interest for pensions and other retirement benefits	–351	–594
Expenses from valuation of contingent considerations and similar agreements	–212,288	0
Other financial charges	–18,958	–35,708
Financial expenses	–264,026	–67,120
	–234,732	–31,267

Other financial expenses and income include the effects of compound interest and the measurement of loans and other financial liabilities denominated in foreign currencies. The expenses from the valuation of contingent considerations result to the extent of €207.7 million from the remeasurement of the contingent consideration in connection with the acquisition of BIA Separations. In the prior period, the valuation effect on this liability was €9.8 million based on the final purchase price allocation and is included in "Other financial income" (in the consolidated financial statements for 2020, income amounting to €31.6 million was reported based on the preliminary purchase price allocation; see Note 8).

13. Income Taxes

€ in K	2021	2020
Current income taxes	–260,869	–150,135
Deferred taxes	19,424	24,944
- of which from tax losses	–1,660	6,485
- of which from temporary differences	21,084	18,459
	–241,445	–125,191

Current income taxes are calculated based on the particular national taxable income for the year, as well as according to national tax regulations. In addition, current taxes may contain adjusted amounts to cover any tax payments or refunds for years not yet assessed.

The following table explains the differences between the tax expense expected and the income tax expenses reported for the particular fiscal year. The expected tax rate is determined based on a weighted average tax rate applied to the pre-tax income of the Group.

€ in K	2021	2020
Expected tax rate	22.7%	24.9%
Expected tax expense	–152,015	–105,746
Effects from intragroup dividends and other non-deductible expenses	–75,062	–13,411
Steuerfreie Erträge und Steuergutschriften	5,660	13,253
Deductible temporary differences and tax losses not capitalized	–3,158	–7,426
Taxes from previous years and adjustments from the revised evaluation of the recoverability of deferred tax assets	–12,177	–9,973
Withholding and other income taxes with different tax base	–3,942	–2,351
Other	–751	463
Income taxes	–241,445	–125,191
Effective tax rate	36.1%	29.5%

The increase in the effective tax rate is particularly due to the effect from the remeasurement of the contingent consideration in connection with the acquisition of BIA Separations (see Note 12). The corresponding expenses are not deductible for tax purposes and, therefore, result in an increase in the tax rate in relation to the profit before tax reported in these consolidated financial statements.

14. Earnings per Share

IAS 33, Earnings per Share, requires earnings per share to be calculated separately for each class of share. The undiluted earnings per share (basic EPS) are calculated based on the number of ordinary shares outstanding during the period. Treasury shares are not included in the calculation of the average number of shares outstanding.

	2021	2020
Ordinary shares		
Basis for calculating basic earnings per ordinary share (net profit after non-controlling interest), € in K	159,357	104,932
Weighted average number of shares outstanding	34,226,009	34,226,009
Basic earnings per ordinary share in €	4.66	3.07
Weighted average number of shares outstanding for calculating the diluted earnings per share	34,226,009	34,226,009
Diluted earnings per ordinary share, in €	4.66	3.07
Preference shares		
Basis for calculating basic earnings per preference share (net profit after minority interest), € in K	159,531	105,163
Weighted average number of shares outstanding	34,189,853	34,189,853
Basic earnings per preference share in €	4.67	3.08
Weighted average number of shares outstanding for calculating the diluted earnings per share	34,189,853	34,189,853
Diluted earnings per preference share, in €	4.67	3.08

Notes to the Statement of Financial Position

15. Goodwill and Intangible Assets

Goodwill

€ in K	Goodwill
Gross book values at Jan. 1, 2020	695,772
Currency translation	–52,514
Acquisitions through business combinations	588,114
Gross book values at Dec. 31, 2020	1,231,372
Amortization and impairment losses at Jan. 1, 2020	0
Currency translation	0
Amortization and impairment losses in 2020	0
Amortization and impairment losses at Dec. 31, 2020	0
Net book values at Dec. 31, 2020	1,231,372
Gross book values at Jan. 1, 2021	1,231,372
Currency translation	45,405
Acquisitions through business combinations	85,267
Gross book values at Dec. 31, 2021	1,362,044
Amortization and impairment losses at Jan. 1, 2021	0
Currency translation	0
Amortization and impairment losses in 2021	0
Amortization and impairment losses at Dec. 31, 2021	0
Net book values at Dec. 31, 2021	1,362,044

The additions in fiscal 2021 were attributable to the acquisitions of CellGenix GmbH and Xell AG (see Note 8). The additions in the prior period were attributable to the acquisitions of WaterSep BioSeparations LLC, BIA Separations (see Note 8), and the selected Life Sciences businesses of Danaher.

Owing to the integration of our businesses in the Bioprocess Solutions and Lab Products & Services divisions, and our respective positioning as a total solutions provider, goodwill is monitored at the level of these cash-generating units and tested annually for impairment according to IAS 36 (impairment test).

Thus, goodwill is allocated to the segments as follows:

€ in K	Dec. 31, 2021	Dec. 31, 2020
Bioprocess Solutions	1,010,936	902,279
Lab Products & Services	351,109	329,093
	1,362,045	1,231,372

The impairment tests for fiscal 2021 were conducted as of November 30, as in prior periods. The calculations measure the recoverable amount on the basis of the value in use of the particular cash-generating unit. Our cash flow forecasts consider previous experience and are generally based on the current projections of Group management for a period of four years. For the Bioprocess Solutions Division, calculations were based on an average terminal growth rate of 2.5% for the fiscal years after 2025. This terminal growth rate is derived from market expectations, which forecast medium-term growth rates in the high upper single-digit to double-digit range for the biopharmaceutical market targeted by the division. The major growth drivers will include the aging population, the increase in population and improved access to pharmaceuticals in emerging-market countries, as well as the ongoing paradigm shift toward the utilization of single-use products in the manufacture of biopharmaceuticals. For the Lab Products & Services Division, a terminal growth rate of 1.5% was used for fiscal years after 2025.

The discount rates of the cash-generating units correspond to their weighted average cost of capital (WACC) and were determined as follows:

	2021		2020	
	Before tax	After tax	Before tax	After tax
Bioprocess Solutions	7.8%	6.3%	7.7%	6.3%
Lab Products & Services	8.4%	6.4%	8.6%	6.7%

In fiscal 2021, these impairment tests did not result in the recognition of impairment losses. Even realistic changes in the basic assumptions on which measurement of value in use is based would not result in the carrying amount of the cash-generating units exceeding their value in use.

Other Intangible Assets

€ in K	Patents, licenses, technologies and similar rights	Brand names	Customer relationships	Capitalized development costs	Payments on account	Total
Gross book values at Jan. 1, 2020	320,265	43,076	225,984	193,627	214	783,165
Currency translation	−39,561	−3,092	−15,606	−2,587	−18	−60,864
Acquisitions through business combinations	520,461	10,118	123,145	0	0	653,724
Capital expenditures	6,084	0	947	43,601	0	50,632
Disposals	−201	0	−822	−1,090	0	−2,113
Transfers	50	0	569	532	−7	1,144
Gross book values at Dec. 31, 2020	807,098	50,101	334,218	234,083	189	1,425,688
Amortization and impairment losses at Jan. 1, 2020	−132,669	−8,259	−131,375	−79,293	0	−351,596
Currency translation	4,520	509	4,072	488	0	9,589
Amortization and impairment losses in 2020	−42,828	−2,723	−25,361	−22,465	0	−93,377
Disposals	194	0	822	1,090	0	2,106
Transfers	−3	0	−569	0	0	−573
Amortization and impairment losses at Dec. 31, 2020	−170,787	−10,473	−152,411	−100,180	0	−433,851
Net book values at Dec. 31, 2020	636,311	39,629	181,807	133,903	189	991,837

€ in K	Patents, licenses, technologies and similar rights	Brand names	Customer relationships	Capitalized development costs	Payments on account	Total
Gross book values at Jan. 1, 2021	807,098	50,101	334,218	234,083	189	1,425,688
Currency translation	33,160	2,813	14,708	3,464	22	54,168
Acquisitions through business combinations	89,628	5,201	35,240	0	0	130,069
Capital expenditures	8,094	0	14	50,863	213	59,184
Disposals	–91	0	0	0	0	–91
Transfers	126	–432	432	0	0	126
Gross book values at Dec. 31, 2021	938,016	57,683	384,612	288,409	424	1,669,145
Amortization and impairment losses at Jan. 1, 2021	–170,787	–10,473	–152,411	–100,180	0	–433,851
Currency translation	–7,034	–610	–5,043	–1,006	0	–13,694
Amortization and impairment losses in 2021	–66,618	–3,340	–30,816	–25,219	0	–125,993
Disposals	31	0	0	0	0	31
Transfers	–3	0	0	0	0	–3
Amortization and impairment losses at Dec. 31, 2021	–244,411	–14,423	–188,270	–126,406	0	–573,510
Net book values at Dec. 31, 2021	693,605	43,260	196,342	162,004	424	1,095,635

Intangible assets acquired are reported at cost less accumulated, regular amortization calculated according to the straight-line method. The useful life of an intangible asset is the period over which this asset is expected to contribute directly or indirectly to the cash flows of that entity.

Costs incurred within the scope of the development of new products and methods are capitalized as internally generated intangible assets only if the criteria according to IAS 38.57 are met. The capitalization of internally-generated intangible assets includes a certain level of estimates and assumptions, e.g., the assessment of the technical feasibility of a development project, its expected market prospects, and the determination of useful lives.

The capitalized development costs essentially cover the costs attributable to the staff involved in R&D, raw materials and supplies, external services and directly attributable overheads. Internally generated intangible assets are amortized over their useful lives on a straight-line basis.

If an internally generated intangible asset cannot be capitalized, the development costs are recognized as expenses in the period in which they are incurred. Costs for research activities are reported as expenses in the period in which they are incurred.

Amortization of intangible assets is based on the following periods of useful life:

Software	2 to 10 years
Customer relationships and technologies	3 to 20 years
Capitalized development expenses	4 to 6 years
Brand name	2 years to an indefinite period

The brand name acquired in the Stedim transaction (carrying amount: €10,779 K) is considered to have an indefinite useful life as there is no foreseeable limit to the period over which it is expected to generate net cash inflows for the company. Because of the integration of the "Stedim" brand into the name of the "Sartorius Stedim Biotech" sub-group and the name of that sub-group's parent entity, the relevant cash flows cannot be measured separately, however. The recoverability of the brand name was considered at the next-higher level of the cash-generating unit (CGU), i.e., the Bioprocess Solutions Division.

The useful lives of the remaining brand names acquired through business combinations are estimated at up to 20 years.

Amortization of intangible assets is allocated to the corresponding functions in the statement of profit or loss. For capitalized development costs, amortization is reported in the cost of sales.

In fiscal 2021, development costs of €50,863 K (2020: €43,601 K) were recognized as assets.

In fiscal 2021, impairment losses of €0.9 million were recognized (2020: 0.0 Mio. €).

16. Property, Plant and Equipment

€ in K	Land, buildings and improvements	Technical machinery and equipment	Factory and office equipment and other equipment	Payments on account and construction in progress	Total
Gross book values at Jan. 1, 2020	540,581	251,498	189,371	109,505	1,090,954
Currency translation	−9,895	−6,315	−2,781	−4,248	−23,239
Acquisitions through business combinations	6,948	5,656	716	8,982	22,303
Capital expenditures	39,681	27,239	21,376	105,782	194,079
Disposals	−683	−3,754	−6,360	539	−10,258
Transfers	19,332	23,556	9,156	−52,733	−689
Gross book values at Dec. 31, 2020	595,964	297,881	211,476	167,828	1,273,149
Depreciation and impairment losses at Jan. 1, 2020	−91,522	−129,007	−112,194	−175	−332,898
Currency translation	1,709	2,662	1,700	3	6,075
Amortization and impairment losses in 2020	−21,080	−22,158	−21,903	0	−65,141
Disposals	547	2,657	5,675	0	8,880
Transfers	−296	−12	275	164	131
Depreciation and impairment losses at Dec. 31, 2020	−110,642	−145,857	−126,446	−8	−382,953
Net book values at Dec. 31, 2020	485,323	152,024	85,030	167,820	890,196
Net book values of right-of-use assets at Dec. 31, 2020	68,279	1,344	11,729	0	81,352
Total book values property plant & equipment at Dec. 31, 2020	553,602	153,368	96,759	167,820	971,548

€ in K	Land, buildings and improvements	Technical machinery and equipment	Factory and office equipment and other equipment	Payments on account and construction in progress	Total
Gross book values at Jan. 1, 2021	595,964	297,881	211,476	167,828	1,273,149
Currency translation	12,745	8,424	2,688	5,131	28,987
Acquisitions through business combinations	13,010	5,555	1,021	72	19,658
Capital expenditures	45,487	44,219	34,969	222,394	347,068
Disposals	−430	−5,307	−5,268	−46	−11,051
Transfers	55,193	17,094	3,206	−75,588	−95
Gross book values at Dec. 31, 2021	721,969	367,865	248,093	319,790	1,657,718
Depreciation and impairment losses at Jan. 1, 2021	−110,642	−145,857	−126,446	−8	−382,953
Currency translation	−2,342	−3,320	−1,912	0	−7,574
Amortization and impairment losses in 2021	−26,446	−30,129	−22,917	0	−79,493
Disposals	245	4,137	5,015	0	9,398
Transfers	69	83	−137	0	14
Depreciation and impairment losses at Dec. 31, 2021	−139,115	−175,086	−146,398	−8	−460,608
Net book values at Dec. 31, 2021	582,854	192,779	101,695	319,782	1,197,110
Net book values of right-of-use assets at Dec. 31, 2021	95,314	1,886	11,513	0	108,713
Total book values property plant & equipment at Dec. 31, 2021	678,168	194,665	113,208	319,782	1,305,823

The "Property, plant and equipment" item is reported at cost and, if subject to depreciation, reduced by regular depreciation. Impairment tests are conducted when impairment indicators are identified. The straight-line method is applied to depreciation reported in the consolidated financial statements.

Depreciation of property, plant and equipment is based on the economic useful life. The following assumptions for the useful life are typically applied:

Buildings	15 to 50 years
Machinery	5 to 15 years
Factory and office equipment	3 to 13 years

Depreciation is presented in the statement of profit or loss according to how the assets are used, in the cost of sales, selling and distribution expenses, research and development expenses, administrative expenses, and other operating expenses.

Borrowing costs are expensed as incurred unless they are directly attributable to the acquisition, construction, or production of a qualifying asset and are therefore part of the cost of that asset.

Grants related to assets are generally deducted from the cost of assets.

17. Leases

Lease accounting follows IFRS 16, Leases. For the financing structure of the Sartorius Group, leases are not of high relevance. In fiscal 2021 and in the past, the Group invested heavily in its sites. The main considerations for leases are therefore generally of a practical nature, for example, with regard to the company's management of IT hardware or fleet management. Accordingly, leases of IT hardware and cars represent the major number of the Group's lease contracts. The lease term of such leases is generally fixed, typically extending to between three and five years.

Furthermore, at some sites, the Group has leases of buildings, which are negotiated and managed locally. These contracts may contain extension options, which are included in the lease term according to IFRS 16 when the Group is reasonably certain that the option will be exercised. The Group does not act as a lessor to a material extent.

According to IFRS 16, a lessee generally recognizes a right-of-use asset as well as a lease liability, which represents its obligation to make lease payments. The Group makes use of the exemptions for short-term leases and leases of low-value assets and recognizes the corresponding lease payments as an expense generally on a straight-line basis over the particular lease term. Accordingly, no right-of-use assets and no lease liabilities are recognized for these leases. Furthermore, taking IFRS 16 under consideration, no right-of-use assets and no liabilities are recognized for leases between Group entities. The Group does not apply this Standard to leases of intangible assets.

In the statement of financial position, the Group presents right-of-use assets according to the nature of the underlying lease assets under "Property, plant and equipment." Right-of-use assets are recognized at cost less accumulated depreciation and any impairment losses. The cost of the right-of-use assets comprises the present value of the future lease payments, any payments paid upon or before commencement of the lease, any initial direct costs, and costs for dismantling or removing the lease asset. The right-of-use assets are typically depreciated over the lease term. If the transfer of legal ownership of a lease asset is planned at the end of the lease term, the right-of-use asset is depreciated over the economic useful life of the lease asset. In the statement of profit or loss, depreciation is recognized within functional costs.

The lease liabilities are disclosed separately on the face of the statement of financial position. Lease liabilities are initially recognized at an amount equal to the present value of the future lease payments. The lease payments do generally not include any payments in relation to non-lease components. In general, the specific applicable incremental borrowing rate of the Group is used for discounting. Subsequently, the carrying amount of the lease liabilities is increased by interest expenses and reduced by lease payments. Interest expenses are reported in the financial result and, to the extent they are paid, in the financing section of the cash flow statement together with "Interest paid."

As of December 31, 2021, lease liabilities stood at €115 million (2020: €86 million). The maturities of the future lease payments are presented in Note 39. The composition of the right-of-use assets included in "Property, plant and equipment" as of December 31, 2021, as well as of the preceding reporting date and the main changes are presented in the table below.

€ in K	Land, buildings and improvements	Technical machinery and equipment	Factory and office equipment and other equipment	Total
Gross book values at Jan. 1, 2020	79,887	3,072	15,677	98,637
Currency translation	–3,818	–31	–284	–4,133
Acquisitions through business combinations	6,004	0	0	6,004
Additions	17,552	180	8,645	26,377
Disposals	–700	–12	–2,466	–3,178
Transfers	0	–107	57	–49
Gross book values at Dec. 31, 2020	98,925	3,102	21,630	123,657
Depreciation and impairment losses at Jan. 1, 2020	–17,554	–899	–5,298	–23,751
Currency translation	934	17	130	1,081
Amortization and impairment losses in 2020	–14,690	–882	–5,908	–21,480
Disposals	663	0	1,145	1,809
Transfers	0	5	30	36
Depreciation and impairment losses at Dec. 31, 2020	–30,646	–1,758	–9,901	–42,305
Net book values at Dec. 31, 2020	68,279	1,344	11,729	81,352

€ in K	Land, buildings and improvements	Technical machinery and equipment	Factory and office equipment and other equipment	Total
Gross book values at Jan. 1, 2021	98,925	3,102	21,630	123,657
Currency translation	5,263	40	439	5,742
Acquisitions through business combinations	3,344	1,001	57	4,402
Additions	39,423	340	7,311	47,074
Disposals	–5,033	–77	–2,550	–7,660
Transfers	0	0	–91	–91
Gross book values at Dec. 31, 2021	141,922	4,406	26,797	173,124
Depreciation and impairment losses at Jan. 1, 2021	–30,646	–1,758	–9,901	–42,305
Currency translation	–1,706	–33	–194	–1,932
Amortization and impairment losses in 2021	–18,331	–761	–6,599	–25,691
Disposals	4,075	32	1,361	5,468
Transfers	0	0	48	48
Depreciation and impairment losses at Dec. 31, 2021	–46,608	–2,520	–15,284	–64,411
Net book values at Dec. 31, 2021	95,314	1,886	11,513	108,713

The table below shows the interest expenses presented in the financial result, the total cash outflows for existing leases, and expenses recognized for short-term leases and leases of low-value assets during the reporting period. No material expenses were recognized for variable lease payments in the reporting period.

€ in K	2021	2020
Interest expenses for leases	3,062	2,710
Expenses for short-term leases	2,661	2,468
Expenses for leases of low value assets	7,068	5,111
Repayment of lease liabilities	23,728	19,729
Total cash outflows for leases	36,519	30,018

18. Deferred Taxes

	Deferred tax assets		Deferred tax liabilities		Changes recognized in profit or loss
€ in K	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	
Other intangible assets	2,077	812	174,159	129,611	1,666
Tangible assets	0	0	18,082	14,552	-2,852
Inventories	31,773	17,935	5,847	0	11,055
Receivables and other current assets	5,392	4,730	0	0	1,894
Provisions	17,330	16,808	0	0	2,112
Liabilities	28,512	17,903	0	0	10,859
Taxable losses carried forward	11,813	12,697	0	0	-1,660
Interest carry-forwards	0	770	0	0	-800
Tax on investments in subsidiaries	0	0	5,700	2,850	-2,850
Total	96,897	71,655	203,788	147,013	19,424
Offset	-21,745	-26,634	-21,745	-26,634	
Total (net)	75,152	45,022	182,043	120,380	

Deferred tax assets and liabilities are determined based on temporary differences between the carrying amounts and the tax bases of assets and liabilities, including differences from consolidation. In addition, loss carry-forwards and tax credits are considered. Measurement is based on the tax rates expected to be effective in the period in which the asset is realized or liability settled. Changes in deferred tax assets and liabilities are reflected in income taxes in the statement of profit or loss. The exceptions are changes that are to be recognized in other comprehensive income directly in equity, as well as effects from acquisitions and currency effects.

In principle, tax rates and tax rules are used that have been enacted or substantively enacted at the reporting date. Deferred tax assets are recognized to the extent that it is probable that taxable profit at the level of the relevant tax authority will be available for the utilization of the deductible temporary differences or losses carried forward.

The Group operates in various tax jurisdictions and therefore has to determine tax positions under respective local tax laws and tax authorities' views, which can be complex and subject to different interpretations by taxpayers and local tax authorities. The amount of uncertain tax positions is determined on the basis of the best estimate of expected tax payments.

Deferred tax assets have to be recognized for all deductible temporary differences and unused tax losses to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences and unused tax losses can be utilized. As future developments are uncertain and partly beyond management's control, assumptions are necessary to estimate future taxable profits as well as the period in which deferred tax assets will be recovered.

Estimates are revised in the period in which there is sufficient evidence to revise the assumption. If management considers it probable that all or a portion of a deferred tax asset cannot be realized, a corresponding valuation allowance is taken into account.

Deferred Tax Assets

For losses of €128 million to be carried forward (prior year: €126 million), no deferred tax amounts were recognized because of the lack of foreseeability of future taxable profits. Of these unused tax losses, €7.1 million can still be carried forward for a limited time (prior year: €9.1 million) of which €5.2 million will expire in the next five years (prior year: €9.1 million). In addition, the Group had unused interest carry-forwards in the amount of €2.1 million (prior year: €6.1 million). No deferred tax assets were considered for these carry-forwards in the reporting year (prior year: €3.0 million). Furthermore, no deferred tax assets were recognized for deductible temporary differences amounting to €30 million (prior year: €35 million).

Deferred tax assets of about €1 million (prior year: about €2 million) relate to companies that reported losses in the year under review or in the prior reporting period. These losses carried forward were reported as assets to the extent that it is assumed that taxable profits will be available in the future, against which the unused tax losses and the deductible temporary differences can be offset.

Deferred Tax Liabilities

The deferred tax liabilities in connection with intangible assets essentially relate to assets acquired in business combinations and, consequently, are mainly linked to customer relationships and technologies.

For temporary differences in connection with shares in subsidiaries, which amounted to €55 million (prior year: €48 million), deferred tax liabilities were not recognized on these differences as the Group controls the development of the temporary differences and the realization of such liabilities is not expected within the foreseeable future.

The income taxes recognized in other comprehensive income are disclosed in the following table:

€ in K	2021	2020
Cash flow hedges	7,100	−3,654
Remeasurements of the net defined benefit liability	−1,232	97
Net investment in a foreign operation	−10,264	12,404
Currency translation	−2,335	1,996
Total	−6,731	10,843

19. Inventories

€ in K	Dec. 31, 2021	Dec. 31, 2020
Raw materials and supplies	307,088	156,913
Work in progress	210,753	159,867
Finished goods and merchandise	356,232	233,661
Payments on account	18,753	6,843
	892,827	557,285

€ in K	Dec. 31, 2021	Dec. 31, 2020
Gross amount of inventories	961,536	594,619
Write-downs	–68,709	–37,334
Net amount of inventories	892,827	557,285

Raw materials and supplies, including merchandise, are reported under “Inventories” at average cost. In principle, finished goods and work in progress are reported at cost of conversion. This cost includes direct costs attributable to these materials and the appropriate portion of production and material handling overheads, general administrative expenses, and depreciation and|or amortization of non-current assets, provided that these expenses are caused by production.

Inventories must be measured at the lower of cost and the net realizable value. The net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary for marketing, sales, and distribution. Where inventory risks exist, such as the risk of reduced shelf life as a result of storage periods or limited usability, inventories are marked down accordingly.

20. Issued Capital

The issued capital of Sartorius AG is divided into 37,440,000 bearer ordinary shares and the same number of non-voting preference shares, each with a calculated par value of €1.00. Preference share owners receive an increased dividend (surplus dividend) of €0.01 per preference share from the distributable profit; however, the dividend must amount to at least €0.02 per preference share. All shares are fully paid up.

Sartorius AG exercised the authority granted at the Annual Shareholders’ Meeting on June 21, 2000, to repurchase treasury shares in the amount of €16,082 K pursuant to Section 71 (1), no. 8 of the German Stock Corporation Act (AktG). As required by IAS 32, treasury shares were deducted from equity and capital reserves.

These shares are held in particular as currency for future acquisitions of companies. From October 27, 2000, to the reporting date, a total of 831,944 ordinary shares were repurchased at an average price of €11.27 and a total of 840,983 preference shares at an average price of €7.98. In December 2015, 25,000 ordinary shares and 25,000 preference shares were issued to the CEO and Executive Board Charmain Dr. Joachim Kreuzburg in accordance with his 2014 remuneration agreement. In November 2020, 13,785 ordinary shares and 13,785 preference shares were issued to the CEO and Executive Board Chairman Dr. Joachim Kreuzburg in accordance with his 2019 remuneration agreement.

Following the stock split carried out in 2016, 3,213,991 ordinary shares and 3,250,147 preference shares remain as treasury stock, representing a proportion of €6,464 K (8.6%) of the share capital.

As in the prior year, no treasury shares were purchased in fiscal 2021.

21. Reserves

Capital Reserves

Capital reserves include the amounts generated above the nominal amount in previous years, when Sartorius AG issued shares. As part of the stock split, an amount of €51,291 K was reclassified from capital reserves to issued capital in fiscal 2016.

In fiscal 2021, capital reserves rose by €1,320 K (prior year: €1,296 K) due to the employee benefits expense to be offset in connection with the share-based remuneration agreement with Dr. Kreuzburg.

Cash Flow Hedging Reserves

Amounts recognized in other comprehensive income as part of an effective hedging relationship are transferred to the cash flow hedging reserves. In particular, these are fluctuations in the fair value of currency hedges as well as their respective tax effects. The cumulative amount transferred to other comprehensive income as of the reporting date stands at €−9,306 K (prior year: 14,362 K).

Pension Reserves

Actuarial gains and losses from defined benefit plan commitments, including their respective tax effects, are included in pension reserves. For further details, see Note 23.

22. Non-Controlling Interest

The Sartorius Stedim Biotech subgroup headquartered in Aubagne, France, accounts for the majority of non-controlling interest in the Sartorius Group. The latter holds approximately 74% of the capital and 85% of the voting rights in this subgroup. The following subsidiaries account for further non-controlling interest amounts:

- Sartorius Korea Biotech based in Seoul, South Korea, with a 69% share in capital
- Sartorius Thailand, Bangkok, Thailand (33%)
- Biological Industries, Kibbutz Beit Haemek, Israel (50%)
- Sartorius CellGenix GmbH (51%)

The investment in Sartorius CellGenix GmbH was acquired in fiscal 2021 (see Note 8 for details). Sartorius Thailand is consolidated due to contractual arrangements to ensure control.

€ in K	2021	2020
Cumulative non-controlling interest as of Dec. 31		
Sartorius Stedim Biotech	384,193	327,169
Other	75,699	21,686
	459,892	348,855
Profit or loss allocated to non-controlling interest		
Sartorius Stedim Biotech	108,493	87,947
Other	–403	1,513
	108,090	89,460
Dividends paid to non-controlling interest		
Sartorius Stedim Biotech	16,413	8,068
Other	1,117	792
	17,530	8,860

The following condensed financial information refers to the Sartorius Stedim Biotech Group:

Condensed Statement of Financial Position

€ in K	Dec. 31, 2021	Dec. 31, 2020
Non-current assets	2,495,469	1,982,789
Current assets	1,455,629	873,945
	3,951,098	2,856,733
Equity	1,733,228	1,461,000
Non-current liabilities	1,180,752	827,893
Current liabilities	1,037,119	567,840
	3,951,098	2,856,733

Condensed Statement of Profit or Loss and Other Comprehensive Income

€ in K	2021	2020
Sales revenue	2,886,977	1,910,081
Profit before tax	646,720	460,694
Income taxes	–232,411	–122,095
Net profit for the period	414,309	338,599
Other comprehensive income after tax	42,865	–30,927
Total comprehensive income	457,174	307,672

Condensed Statement of Cash Flows

€ in K	2021	2020
Cash flow from operating activities	695,971	416,879
Cashflow aus Investitionstätigkeit	-465,226	-621,116
Cash flow from financing activities	-71,711	234,066
Change in cash and cash equivalents	159,033	29,829
Cash and cash equivalents at the beginning of the period	59,762	28,166
Net effect of currency translation on cash and cash equivalents	4,831	1,767
Cash and cash equivalents at the end of the period	223,626	59,762

23. Pension and Employee Benefits Provisions

Defined Contribution Plans

Most companies in the Group have defined contribution plans, frequently in the form of government-backed retirement insurances. In fiscal 2021, an amount of €51.9 million was recognized for defined contribution plans (prior year: €36.7 million).

Defined Benefit Plans

Pension provisions and similar obligations are recognized in accordance with IAS 19, Employee Benefits, applying the projected unit credit method. Under this method, obligations for pensions and other post-employment benefits are determined in accordance with actuarial valuations. In addition to known pensions and entitlements, these valuations rely on certain assumptions including discount rates, future salary and pension increases, and mortality rates.

The assumed discount factors reflect the interest rates that were paid on the reporting date for prime corporate (industrial) bonds with matching maturities and denominated in the relevant currencies. If such corporate bonds are not available with matching long-term maturities or are insufficiently available, their matching interest rates are determined by extrapolation.

Due to changing market and economic conditions, the underlying key assumptions may differ from actual developments and may lead to significant changes in pension and other post-employment benefit obligations. All resulting actuarial gains and losses are shown directly in other comprehensive income of the respective period according to IAS 19 and do therefore not affect profit or loss. The actuarial losses, which were transferred to the pension reserves, essentially resulted from a change in the discount rate and totaled €–40,792 K (prior year: €–44,507 K).

An amount of €57,357 K (prior year: €60,947 K) relates in particular to the net amount of pension provisions for retirement pension plans in Germany. These provisions are based on direct commitments to employees under defined benefit pension plans. Under these commitments, the employees earn benefits for each year of service rendered to the company. The pension benefits are generally not funded by assets. A substantial portion of these provisions relates to Sartorius AG. In this case, the obligations measured pertain, firstly, to the General Pension Plan ("Allgemeine Versorgungsordnung") for employees whose employment commenced prior to January 1, 1983. Secondly, individual commitments have been made to current and former Executive Board members and executives.

Measurement of the post-employment benefit obligations of the German Group companies is based on the following actuarial assumptions:

	2021	2020
Discount rate	0.90%	0.45%
Future salary increases	3.00%	3.00%
Future pension increases	2.00%	2.00%

Concerning the assumptions on mortality and invalidity, the actuarial tables (RT) 2018 G compiled by Klaus Heubeck were used.

The following parameters were used for the French companies:

	2021	2020
Discount rate	0.90%	0.50%
Future salary increases	2.00%	2.00%
Future pension increases	2.00%	2.00%

The amounts reported in the statement of profit or loss and in the statement of comprehensive income consist of the following:

€ in K	2021	2020
Service cost	2,204	1,985
Net interest cost	312	570
Components of defined benefit costs recognized in profit or loss	2,516	2,555
Return on plan assets (excl. interest)	–46	–58
Actuarial gains | losses	–3,669	5,000
Components of defined benefit costs recognized in other comprehensive income	–3,716	4,942
Total defined benefit costs	–1,200	7,497

In the statement of profit or loss, the current service cost is disclosed according to the assignment of employees to the respective functions.

The net amount or present value included in the consolidated statement of financial position arising from the Group's obligation in respect of defined benefit plans is as follows:

€ in K	Dec. 31, 2021	Dec. 31, 2020
Present value of obligations	97,449	98,421
Fair value of the plan assets	22,046	18,052
Net liability	75,403	80,368

Defined Benefit Obligation

€ in K	2021	2020
Present value of obligations as of Jan. 1	98,421	91,369
Current service cost	3,386	2,705
Past service cost	−1,182	−720
Interest cost	489	697
Actuarial gains | losses	−3,773	5,001
Currency translation differences	792	−205
Retirement benefits paid in the reporting year	−2,567	−4,044
Employer contributions	298	260
Employee contributions	546	449
Change in the scope of consolidation	0	0
Contributions by the plan participants	2,504	1,949
Other changes	−1,464	959
Present value of obligations as of Dec. 31	97,449	98,421

The actuarial gains and losses of the defined benefit obligation are allocated as follows:

€ in K	2021	2020
Experience adjustments	2,219	1,498
Changes in demographic assumptions	−1,036	171
Changes in financial assumptions	−4,957	3,332
Total	−3,773	5,001

Plan Assets

€ in K	2021	2020
Plan assets at Jan. 1	18,052	14,818
Interest income	178	128
Return on plan assets (excl. interest)	46	58
Actuarial gains | losses	−104	1
Group contribution & payments	−1,999	−1,724
Employee contributions	546	449
Currency translation differences	582	−100
Employer contributions	2,241	2,066
Contributions by the plan participants	2,504	1,949
Other changes	0	408
Plan assets as of Dec. 31	22,046	18,052

Composition of Plan Assets

Plan assets essentially consist of insurance contracts with insurance companies in Germany and Switzerland. An amount of €7.6 million (prior year: €6.2 million) is held by local banks as securities for subsidiaries in South Korea.

Risks

The defined benefit plans do not entail any significant entity-specific or plan-specific risks. Due to the rather low coverage of the defined benefit obligation by plan assets, liquidity risks arise in principle, which are immaterial for the Group due to their low monetary amount.

Sensitivity Analysis

An increase or a decrease in the actuarial assumptions would have the following impacts on the defined benefit obligations for the year ended December 31, 2021 (a plus sign before the number indicates an increase in the obligation):

Demographic assumptions		
Change in life expectancy	−1 year	+1 year
Effect	−3,939	4,035

Financial assumptions		
Change in discount rate	−100 bps	+100 bps
Effect	12,946	−11,187
Change in future salary increase	−50 bps	+50 bps
Effect	−2,646	2,717
Change in future pension increase	−25 bps	+25 bps
Effect	−3,217	3,358

Present value of the defined benefit obligations for the year ended December 31, 2020:

Demographic assumptions		
Change in life expectancy	−1 year	+1 year
Effect	−4,000	4,106

Financial assumptions		
Change in discount rate	−100 bps	+100 bps
Effect	15,018	−12,431
Change in future salary increase	−50 bps	+50 bps
Effect	−2,983	3,208
Change in future pension increase	−25 bps	+25 bps
Effect	−3,229	3,382

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligation as it is unlikely that changes in assumptions occur in isolation. Furthermore, the present value of the defined benefit obligation was calculated using the same method that was applied in calculating the defined benefit obligation liability recognized in the statement of financial position (projected unit credit method).

Maturity Analysis

The undiscounted cash flows from defined benefit obligations can be allocated to maturities as follows:

€ in K	Dec. 31, 2021	Dec. 31, 2020
< 1 year	4,297	4,302
1-5 years	16,956	15,388
6-10 years	26,961	23,976
>10 years	138,040	119,595

The weighted average duration of the defined benefit obligations is 15.4 years (prior year: 16.4 years).

For fiscal 2022, payments of €5.8 million for defined benefit plan commitments are expected (prior year: €5.2 million). These cover contributions to plan assets and payment of retirement benefits.

24. Other Provisions

Provisions are recognized if a legal or constructive obligation or liability to third parties exists and if an outflow of resources is probable and the expected obligation can be reliably estimated. The amount recognized for a provision represents the best estimate of the obligation at the reporting date.

To determine the amount of the obligations, certain estimates and assumptions need to be applied, including an evaluation of the probability that such an obligation could occur, and the amount of costs incurred. Typically, significant uncertainties are involved in the determination of provisions related to onerous contracts, warranty costs, closure of business locations, asset retirement obligations and legal proceedings.

Non-Current Provisions

€ in K	Payments to employees on early retirement plan	Other	Total
Balance at Jan. 1, 2020	4,332	4,105	8,437
Change in the scope of consolidation	0	2,744	2,744
Currency translation	–5	–89	–94
Consumption	–2,083	–192	–2,275
Reversals | Utilization	–4	–179	–183
Additions	2,833	406	3,239
Balance at Dec. 31, 2020	5,073	6,795	11,868

€ in K	Payments to employees on early retirement plan	Other	Total
Balance at Jan. 1, 2021	5,073	6,795	11,868
Change in the scope of consolidation	0	0	0
Currency translation	–1	–7	–8
Consumption	–2,411	–404	–2,815
Reclassifications	0	0	0
Reversals | Utilization	0	–53	–53
Additions	3,663	655	4,318
Balance at Dec. 31, 2021	6,324	6,986	13,310

The non-current provisions comprise mainly provisions for partial retirement agreements, a type of early retirement plan, and employee bonuses for their company anniversaries. These obligations arise mainly at German Group companies. The early retirement plans are partial retirement plans that permit employees to work part-time for 3 to 5 years directly before they are due to retire at the legal retirement age and that are financially supported by the company.

According to IAS 19, the expenses related to severance payments to be earned in future periods must be spread over the active employee's respective remaining period of service. Actuarial gains and losses, as well as past service costs, are to be recognized in profit or loss.

Bonuses for service anniversaries are generally granted to employees who have completed 20, 25, 30, and 40 years of service and cover additional special vacation as well as relatively small amounts of money.

Non-current provisions are reported at their present value on the reporting date. The discount rate is -0.2% (prior year: -0.3%) for employees on the early retirement plan and 0.77% (prior year: 0.28%) for provisions recognized for service anniversaries. In fiscal 2020 and 2021, the effect of compounding non-current provisions, including the effects of changes in the interest rate, were immaterial.

Current Provisions

€ in K	Warranties	Other	Total
Balance at Jan. 1, 2020	7,555	7,867	15,422
Currency translation	-322	-46	-367
Change in the scope of consolidation	696	1,400	2,096
Consumption	-330	-809	-1,140
Reversals	-1,748	-1,748	-3,496
Additions	7,334	9,654	16,988
Balance at Dec. 31, 2020	13,186	16,318	29,504

€ in K	Warranties	Other	Total
Balance at Jan. 1, 2021	13,186	16,318	29,504
Currency translation	828	82	910
Change in the scope of consolidation	110	399	509
Consumption	-1,085	-1,144	-2,229
Reclassifications	0	0	0
Reversals	-3,997	-3,606	-7,603
Additions	25,693	11,602	37,295
Balance at Dec. 31, 2021	34,735	23,651	58,386

Provisions for warranties cover expected replacement deliveries and repairs. Such provisions are recognized to cover individual risks, provided that their occurrence is more likely than not, as well as to cover general warranty risks based on past experience.

Other provisions include those for pending losses on onerous contracts and for uncertain obligations concerning employee benefits, as well as provisions for interest in connection with tax risks.

25. Other Liabilities

€ in K	Dec. 31, 2021	Dec. 31, 2020
Tax and social security	54,483	36,075
Other	80,183	46,607
Other liabilities	134,666	82,682

26. Employee Benefits

The liabilities for employee benefits amount to €153,902 K (prior year: €96,268 K) and include accruals for paid vacation and overtime, variable remuneration, and other personnel liabilities.

Financial Instruments | Financial Risks

Financial instruments are any contracts that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Such financial instruments are recognized on the trade date. The following sections provide a comprehensive overview of the relevance of financial instruments to Sartorius and additional information on the items of the statement of financial position that include financial instruments.

Financial assets are primarily comprised of cash and cash equivalents, trade receivables as well as derivatives with a positive fair value.

Financial liabilities of the Group mainly comprise loans from banks, trade payables, lease liabilities and derivative financial instruments with a negative fair value. Furthermore, material financial liabilities result from contingent consideration according to IFRS 3. Except for derivative financial instruments and contingent consideration, financial liabilities are measured at amortized cost using the effective interest method.

27. Financial Instruments: Significant Accounting Policies

Financial instruments are accounted for according to IFRS 9, Financial Instruments. Under IFRS 9, the classification and measurement approach for financial assets reflects both the entity's business model (held-to-collect, held-to-collect-and-sell, other) within the scope of which assets are held and the contractual cash flow characteristics ("SPPI" criterion: solely payments of principal and interest). There were no reclassifications of financial instruments during the reporting period.

With regard to the impairment of financial assets, IFRS 9 sets out an expected-loss model. Financial assets are generally regarded as credit-impaired when there are objective indications that cast doubt on the probability of fully collecting the cash flows of the respective financial assets. With regard to the financial assets of the Group, the simplified approach applied to trade receivables is of particular importance.

Besides trade receivables, cash and cash equivalents are the most material financial assets on the Group's statement of financial position as of the reporting date, December 31, 2021. No impairment is recognized for these financial assets due to materiality considerations. As on the last reporting date, for the remaining financial assets that are measured at amortized cost, no impairment is recognized as of December 31, 2021, for the 12-month expected credit losses, given the Group's immaterial historical losses.

Derivatives such as forward contracts on foreign currencies are measured at fair value. In this context, the derivatives are recognized at fair value calculated applying recognized mathematical methods. The fair values are based on the market data available at the time the value of these derivatives is calculated. Instruments that are not designated as hedging instruments and to which no hedge accounting is applied are classified as held for trading. Changes in the fair values of derivative financial instruments are either recognized in profit or loss or, in the case of hedging relationships, in other comprehensive income.

The Group applies the hedge accounting rules of IFRS 9. The Group uses forward transactions to hedge cash flow risks that result from changes in foreign exchange rates in relation to sales of products and the production activities, and designates only the spot element of the hedging instrument.

Financial Assets

28. Cash and Cash Equivalents

The Group considers all highly liquid investments with up to three months' maturity from the date of acquisition to be cash or cash equivalents. These mainly comprise deposits in banks. Cash and cash equivalents are measured at cost. As of the reporting date on December 31, 2021, cash and cash equivalents stood at around €342,809 K (prior year: €203,435 K).

29. Current Trade and Other Receivables

€ in K	Dec. 31, 2021	Dec. 31, 2020
Trade receivables from third parties	419,868	306,727
Amounts due from customers for contract work[1]	4,106	6,159
Receivables from non-consolidated affiliates	20	1,374
Trade receivables	423,994	314,260

1 Contract assets according to IFRS 15 (see Note 9).

The carrying amounts of trade receivables approximate the receivables' fair value due to their short maturities. Contract assets result from customer-specific construction contracts that meet the criteria for recognition of revenue over time in accordance with IFRS 15 (see Note 9). The amount of trade receivables presented as of December 31, 2021, is reduced by €168.1 million as result of factoring because substantially all risks and rewards in relation to the financial assets sold were transferred to the buyer (prior year: €121.5 million). In particular, credit risk and any foreign exchange rate risks were transferred completely.

Impairment losses on trade and other receivables are recognized using separate allowance accounts. For information on how these allowances were determined, see Note 40.

30. Other Financial Assets

€ in K	Dec. 31, 2021	Dec. 31, 2020
Derivative financial instruments	1,518	13,428
Loan receivables from affiliates	5,253	12,694
Miscellaneous other financial assets	18,176	14,212
Other financial assets	24,947	40,334

The carrying amount of derivatives represents the positive market values of currency hedges. The remaining other financial assets are measured at amortized cost, less any impairment losses, by application of the effective interest method.

Financial Liabilities

31. Loans and Borrowings and Lease Liabilities

€ in K	Balance at Dec. 31, 2021	Of which non-current	Balance at Dec. 31, 2020	Of which non-current
Loans and borrowings	1,960,415	1,649,088	2,001,775	1,826,337
Lease liabilities	115,048	88,910	85,591	65,549
	2,075,463	1,737,998	2,087,366	1,891,886

A major pillar of financing for the Sartorius Group is the syndicated credit line of €600 million concluded in December 2020 with a minimum maturity up to 2024, which can be extended at the end of 2022 by one year upon unanimous agreement of the parties. To date, this credit line has not been utilized by the Group. Further elements of the company's financing are various note loans ("Schuldscheindarlehen") placed in 2012, 2016, 2017, and 2020, respectively, with a total volume of approximately €1,250 million and original maturities of up to 10 years. Furthermore, the company has several current and non-current loans totaling around €675 million.

These predominantly long-term financing instruments are supplemented by various short-term credit lines totaling around €270 million.

32. Other Non-Current Liabilities

€ in K	Dec. 31, 2021	Dec. 31, 2020
Liabilities for the acquisition of non-controlling interests	211,692	35,614
Contingent considerations	194,932	81,269
Liability for phantom stock units in connection with the AllPure acquisition	7,812	4,991
Other liabilities	7,382	6,983
Total	421,818	128,857

For the liabilities resulting from the contingent consideration agreements in connection with the acquisitions of BIA Separations, WaterSep BioSeparations and Xell as well as for the liabilities in connection with the potential acquisition of the remaining non-controlling interest in Sartorius CellGenix due to the put options of the owners, see Note 8. The liabilities for the acquisition of non-controlling interests further include the non-current portion of the liabilities resulting from the put options of the non-controlling shareholders of Biological Industries amounting to €37.9 million (prior year: €35.6 million).

33. Trade Payables

€ in K	Dec. 31, 2021	Dec. 31, 2020
Payments received on account of orders [1]	232,045	140,931
Trade payables to third parties	281,897	188,782
Payables to affiliated companies	1,099	1,030
Trade payables	515,041	330,742

1 Contract liabilities according to IFRS 15 (see Note 9).

34. Other Current Financial Liabilities

€ in K	Dec. 31, 2021	Dec. 31, 2020
Derivative financial instruments	11,468	26
Other	157,523	48,680
Other financial liabilities	168,991	48,706

"Other liabilities" as of December 31, 2021, include the current portion of the liabilities in connection with the possible acquisition of the non-controlling interest in Biological Industries (€6.3 million; prior year: €5.9 million) as well as the current portion of the contingent consideration in connection with the acquisition of BIA Separations (€97.9 million; prior year: €0.0 million). Furthermore, as of December 31, 2021, the Group had refund liabilities in accordance with IFRS 15 amounting to €21,865 K (2020: €10,858 K).

35. Carrying Amounts and Fair Values

The following table shows the carrying amounts and fair values of the Group's financial instruments according to IFRS 9 as of December 31, 2021, and as of December 31, 2020:

€ in K	Category acc. to IFRS 9	Carrying amount Dec. 31, 2021	Fair value Dec. 31, 2021	Carrying amount Dec. 31, 2020	Fair value Dec. 31, 2020
Investments in non-consolidated subsidiaries	n/a	31,625	31,625	15,162	15,162
Financial investments	Equity instruments at fair value through profit or loss	4,460	4,460	4,460	4,460
Financial investments	Debt instruments at fair value through profit or loss	17,350	17,350	11,545	11,545
Financial assets	Measured at amortized cost	7,413	7,413	2,953	2,953
Financial assets (non-current)		60,848	60,848	34,120	34,120
Amounts due from customers for contract work (contract assets)	n/a	4,106	4,106	6,159	6,159
Trade receivables	Measured at fair value through other comprehensive income	180,860	180,860	119,414	119,414
Trade receivables	Measured at amortized cost	239,028	239,028	188,687	188,687
Trade receivables		423,994	423,994	314,260	314,260
Receivables and other assets	Measured at amortized cost	23,429	23,429	26,906	26,906
Derivative financial instruments in hedge relationships[1]	n/a	1,518	1,518	13,428	13,428
Other financial assets (current)		24,947	24,947	40,334	40,334
Cash and cash equivalents	Measured at amortized cost	342,809	342,809	203,435	203,435
Loans and borrowings	Financial liabilities at cost	1,960,415	1,986,620	2,001,775	2,009,789
Trade payables	Financial liabilities at cost	282,996	282,996	189,812	189,812
Trade payables | payments received for orders (contract liabilities)	n/a	232,045	232,045	140,931	140,931
Trade payables		515,041	515,041	330,742	330,742
Derivative financial instruments in hedge relationships[1]	n/a	11,468	11,468	26	26
Other financial liabilities	Financial liabilities at fair value through profit or loss	292,828	292,828	81,269	81,269
Other financial liabilities	Financial liabilities at cost	286,513	286,097	96,268	96,376
Other financial liabilities		590,809	590,393	177,563	177,671

1 The amounts each contain the non-designated part of derivatives of a total of -€0.6 million (2020: -€1.0 million).

The fair values of the financial instruments were determined on the basis of the market information available on the reporting date, and are to be allocated to one of the three levels of the fair value hierarchy in accordance with IFRS 13.

Level 1 financial instruments are measured on the basis of prices quoted on active markets for identical assets and liabilities. In Level 2, financial instruments are measured on the basis of input factors that can be derived from observable market data or on the basis of market prices for similar instruments. Level 3 financial instruments are measured on the basis of input factors that cannot be derived from observable market data.

The financial instruments recognized at fair value as at December 31, 2021, relate especially to the contingent considerations in connection with the acquisitions of BIA Separations, WaterSep BioSeparations, and Xell. Since the valuations depend, among other factors, on the predicted sales performance of the acquired businesses, the valuations are regarded as Level 3 inputs. For further information about the acquisitions and the measurement of contingent considerations on the respective acquisition dates and as of the reporting date, please refer to Note 8.

The remaining financial instruments recognized at fair value on the reporting date are mainly trade receivables that are part of a portfolio that is "held-to-collect-and-sell", as well as derivatives in the form of forward contracts. These trade receivables are valued in the same way as trade receivables measured at amortized cost due to their short contractual maturities and immaterial credit risks. The derivatives were measured on the basis of their quoted exchange rates and market yield curves (Level 2).

The "financial investments" measured at fair value are measured on the basis of the most recent reliable indicators available as of the reporting date, e.g., on the basis of the most recent financing round, the latest investor's updates, or at historical cost of acquisition (Level 3).

The fair values disclosed for financial liabilities recognized at amortized cost, especially liabilities to banks and those related to note loans ("Schuldscheindarlehen"), were measured on the basis of the yield curve, taking the current indicative credit spreads into account (Level 2).

The fair values of the remaining financial assets and liabilities to be disclosed approximate the carrying amounts because of their predominantly short maturities. The maximum default risk is reflected by the carrying amounts of the financial assets recognized in the statement of financial position.

The Group recognizes transfers between the levels of the fair value hierarchies at the end of the reporting period during which the change has occurred. In the current reporting period, there were no transfers between the levels.

36. Net Result for Financial Instruments

The net gains and losses of the various categories of financial instruments are presented in the following table:

Category acc. to IFRS 9 € in K	2021	2020
Financial assets at amortized cost	17,663	−9,085
Financial assets and liabilities at fair value through profit or loss	−207,505	8,573
Financial assets at fair value through other comprehensive income	1,807	−6,766
Financial liabilities at cost	−14,075	−8,850

The net result of financial assets measured at amortized cost primarily consists of currency translation effects as well as changes in allowances.

The net result of financial assets and liabilities measured at fair value through profit or loss consists primarily of changes in the fair value of derivative financial instruments as well as of interest income and expenses for these instruments, and of changes in the value of contingent consideration in connection with business combinations (see Note 8).

The net result of financial instruments through other comprehensive income consists of income and expenses in connection with trade receivables that are not solely held to collect contractual cashflows, but may also be sold under the factoring program.

The net result of liabilities measured at amortized cost mainly consists of the effects of foreign currency translation.

The total interest income and expenses for financial assets and liabilities that are not recognized at fair value through profit and loss are as follows:

€ in K	2021	2020
Interest income	1,652	1,289
Interest expenses	−22,706	−20,613

Capital and Financial Risk Management

Capital Management

In the Sartorius Group, capital is managed in order to maximize earnings of the company's stakeholders by optimizing the ratio of equity to liabilities.

Furthermore, we ensure that all Group companies operate under the premise of the going-concern principle. The financial liabilities described in Note 31 are regarded as managed capital as are the cash and cash equivalents and equity capital.

Goals of Financial Risk Management

The Treasury Management unit of the Group coordinates access to national and international financial markets. In addition, the Treasury Management unit monitors and controls financial risks, which essentially entail currency, interest rate, liquidity, and credit risks.

The Sartorius Group strives to minimize the impact of currency and interest rate risks using (derivative) financial instruments. Hedging transactions and their control are carried out by different staff members. Moreover, the Group's Internal Auditing Department regularly monitors the use of such financial instruments. Derivative financial instruments are traded for hedging purposes only.

37. Management of Exchange Rate Risks and Hedge Accounting

Management of Exchange Rate Risks

The Group is exposed to currency risks as approximately two thirds of its sales revenue is generated in foreign currencies and, of this amount, two thirds is generated in U.S. dollars or currencies linked to the U.S. dollar. At the same time, Sartorius' global manufacturing network enables the company to offset the lion's share of sales revenues received in foreign currency within the Group against costs likewise incurred in foreign currency. The remaining net currency exposures are hedged according to a cash flow at risk (CfaR) model within the limits of a risk budget with derivative financial instruments. The resulting hedge ratios reach up to 80% for the relevant currencies, respectively. The Group generally follows a rolling hedging strategy of up to 12 months in advance. These hedging measures are reviewed at regular intervals in the light of current market risk parameters and adapted where necessary.

On the basis of the material forward contracts concluded by the end of the reporting date, we secure the right, and simultaneously create the obligation, to sell an established foreign currency amount on the exercise date at a specific exchange rate against the euro, independently of the actual exchange rate on that date. The profit or loss resulting from the difference between the current and the previously agreed exchange rate is generally recognized as income or expense in the statement of profit or loss.

The following table shows the forward transactions as of the reporting date:

December 31, 2020	Currency	Volume	Maturity	Fair value € in K
Forward contract	USD	225,000	2021	12,669
	USD	225,000		12,669
Forward contract	JPY	1,550,000	2021	152
	JPY	1,550,000		152
Forward contract	CAD	−2,000	2021	11
	CAD	−2,000		11
Forward contract	GBP	43,000	2021	570
	GBP	43,000		570

December 31, 2021	Currency	Volume	Maturity	Fair value € in K
Forward contract	USD	426,700	2022	−10,193
	USD	426,700		−10,193
Forward contract	JPY	3,750,000	2022	162
	JPY	3,750,000		162
Forward contract	CHF	−5,000	2022	−26
	CHF	−5,000		−26
Forward contract	GBP	93,800	2022	220
	GBP	93,800		220
Forward contract	SEK	120,000	2022	−113
	SEK	120,000		−113

Sartorius uses a cash flow at risk (CfaR) model to measure foreign currency risk. The basis for the analysis of foreign currency risks are the expected cash inflows and outflows in foreign currencies (so-called net exposures). The total foreign currency risk to which all absolute values of the net exposures are aggregated is as follows at the reporting date for the following 12 months:

In millions of €	Dec. 31, 2021	Dec. 31, 2020
Foreign currency exposure	1,056	571
Of which short positions	58	74

The risk position of the Group is reflected by the CfaR that remains after considering all hedging activities of the Group. The CfaR approach takes into account the impact of possible currency fluctuations on the cash flows in foreign currencies (against the euro) on the basis of probability distributions. In this context, the covariances of the foreign currencies weighted with the net exposures serve as input factors for the estimation of portfolio volatility, which is decisive for determining the CfaR. Correlations between the currencies are taken into account in this method as risk is reduced in the risk aggregation.

The possible negative impact on EBITDA is determined for each currency based on actual exchange rates and net exposures with a confidence level of 95% for the next 12 months. The following table presents the possible negative impact for the Group as determined by the CfaR approach for the following 12 months:

In millions of €	Dec. 31, 2021	Dec. 31, 2020
Cashflow-at-Risk	37	22

Hedge Accounting

Derivative financial instruments are measured at the time of acquisition at cost and at fair value on subsequent reporting dates. The changes in value of the derivative financial instruments are generally recognized in the statement of profit or loss on the reporting date.

If the derivative financial instruments are used to hedge cash flow risks arising from exchange rate risks and a qualifying hedging relationship exists based on the criteria of IFRS 9, the valuation adjustments for the effective portion are recognized in other comprehensive income. Only the change in the spot element of the forward contracts used as cash flow hedges are regularly designated. Amounts accumulated in equity are reclassified to profit or loss in other income and other expenses (see Note 11) in the same periods in which the hedged items affect profit or loss. The changes in the cash flow hedging reserves are shown in the statement of changes in equity and in the statement of comprehensive income. The non-designated or ineffective part is recognized immediately in profit or loss in the financial result.

The critical terms match method is used to test the effectiveness of a hedging relationship; in other words, the economic relationship between the hedging instrument and the underlying hedged item is determined based on the consistency of the significant contractual features of the transactions. To this extent, the Group conducts a qualitative assessment. Hedge ineffectiveness may possibly arise if the timing of future transactions deviates from the original assumptions or the credit risk of the counterparties of the forward contract changes.

The following table shows the impact of foreign currency hedges on the net worth, financial position, and earnings of the Group:

Currency	Carrying amount (assets) Dec. 31, 2020 € in K	Carrying amount (liabilities) Dec. 31, 2020 € in K	Hedge ratio	Change in value of hedging instruments € in K	Change in value of hedged items € in K	Nominal amount in each foreign currency in K	Maturity: 1-6 months	Maturity: 7-12 months	Average exercise price
USD	13,673	3	100%	13,670	13,670	225,000	155,000	70,000	1.15
CAD	11	0	100%	11	11	2,000	2,000	0	1.55
JPY	166	10	100%	156	156	1,550,000	1,550,000	0	124.65
GBP	524	0	100%	524	524	43,000	23,000	20,000	0.91

Currency	Carrying amount (assets) Dec. 31, 2021 € in K	Carrying amount (liabilities) Dec. 31, 2021 € in K	Hedge ratio	Change in value of hedging instruments € in K	Change in value of hedged items € in K	Nominal amount in each foreign currency in K	Maturity: 1-6 months	Maturity: 7-12 months	Average exercise price
USD	207	9,637	100%	-9,430	-9,430	426,700	253,400	173,300	1.17
CHF	0	26	100%	-26	-26	5,000	5,000	0	1.04
JPY	200	16	100%	184	184	3,750,000	1,420,000	2,330,000	130.28
GBP	916	825	100%	91	91	93,800	88,800	5,000	0.86
SEK	0	125	100%	-125	-125	120,000	49,000	71,000	10.22

In the statement of financial position, hedging instruments with a positive fair value are disclosed under "Financial assets (non-current)" and "Other financial assets (current)," while instruments with a negative fair value are reported under "Other financial liabilities (non-current)" and "Other financial liabilities (current)."

38. Interest Risk Management

The entire Sartorius Group is generally financed through Sartorius AG, which uses internal Group loans to ensure the financing of all Group companies. The Sartorius Group is exposed to interest rate risks as some loans are taken out at variable interest rates. As of December 31, 2021, the Group predominantly obtained financing at fixed interest rates (approx. 93%), meaning that interest rate risk is of minor significance for the Group's net worth, financial position, and earnings. As in the prior year, the interest rate hedges concluded by the Group in the past are not currently being used.

As of December 31, 2021, the volume of variable interest loans was around €140 million (prior year: €319 million). For the financial instruments held as of the reporting date, a sensitivity analysis yields the following results: if the market interest rate had been 1.0 percentage point higher, this would have had an impact on annual profit of €–1.1 million resulting from the variable interest loans (prior year: €–3.5 million).

A decrease in the base interest rate to 0% was used to measure the sensitivities of declining interest rates. Under this condition, the corresponding effect on profit before tax would have been immaterial (prior year: €0.3 million).

39. Liquidity Risk Management

The following table shows the liquidity analysis for financial liabilities, excluding derivatives, in the form of contractually agreed undiscounted cash flows based on conditions as of the reporting date:

€ in K	Carrying amount Dec. 31, 2020	Cash flow Dec. 31, 2020	< 1 year	1 to 5 years	> 5 years
Loans and borrowings	2,001,775	2,103,959	195,126	1,174,436	734,397
Lease liabilities	85,591	103,841	22,629	51,346	29,866
Trade payables	189,812	189,812	189,812	0	0
Other liabilities (excluding derivatives)	177,537	183,631	48,777	90,886	43,968
Financial liabilities	2,454,715	2,581,243	456,344	1,316,668	808,231

€ in K	Carrying amount Dec. 31, 2021	Cash flow Dec. 31, 2021	< 1 year	1 to 5 years	> 5 years
Loans and borrowings	1,960,415	2,042,966	329,956	1,065,717	647,293
Lease liabilities	115,048	133,776	29,127	66,933	37,716
Trade payables	282,996	282,996	282,996	0	0
Other liabilities (excluding derivatives)	579,341	585,233	167,718	307,115	110,400
Financial liabilities	2,937,800	3,044,970	809,797	1,439,765	795,409

The carrying amounts and cash flows for the derivatives are shown as follows:

€ in K	Carrying amount Dec. 31, 2020	Cash flow Dec. 31, 2020	< 1 year	1 to 5 years	> 5 years
Gross fulfillment					
Forward contracts	26	26	26	0	0
Payment obligation			15,044	0	0
Payment claim			–15,018	0	0
Derivatives	26	26	26	0	0

€ in K	Carrying amount Dec. 31, 2021	Cash flow Dec. 31, 2021	< 1 year	1 to 5 years	> 5 years
Gross fulfillment					
Forward contracts	11,468	11,451	11,451	0	0
Payment obligation			395,735	0	0
Payment claim			–384,284	0	0
Derivatives	11,468	11,451	11,451	0	0

The Group controls liquidity risks by maintaining credit lines and additional facilities with banks, continuously tracking the forecasted and actual cash flows, and by managing the maturity profiles of financial assets and liabilities.

It is not expected that cash outflows will occur at materially different reporting dates or in materially different amounts.

Local cash funds in certain countries (e.g., China and India) are only available to the Group for cross-border transactions subject to exchange controls.

As in the previous year, all derivative financial instruments of the Group are subject to the German Master Agreement for Financial Futures with regard to offsetting of the cash flows.

The syndicated credit line amounting to €600 million at variable interest rates had not been used as of December 31, 2021 (utilization prior year: €0 million). In addition, the Group had further bilateral credit lines at variable interest rates available amounting to €270 million as of December 31, 2021 (prior year: €260 million), of which approximately €33 million had been drawn at the reporting date (prior year: €7 million).

As of December 31, 2021, there were no material financing agreements that require the Group to comply with standard financial key ratios, so-called financial covenants.

40. Credit Risk Management

Credit risk is the risk of financial loss to the Sartorius Group if a counterparty to a financial instrument fails to meet its contractual obligations. Credit risks arise in particular from trade receivables as well as from cash and cash equivalents and bank deposits. Moreover, the Group is exposed to credit risks arising from derivatives with a positive fair value and, to a low degree, to other contractual cash flows from debt securities.

Credit risk is managed centrally for the Group by the Treasury Management unit. The creditworthiness of banks and financial institutions as counterparties of the Group is continuously monitored in order to detect increases in credit risks at an early stage. If no new information is obtained, the Group assumes that its related financial assets still have only a low credit risk.

Customers are assigned to different risk limits, which are essentially based on business volume, past experience, and the net worth and financial situation of these customers. The management responsible for these customers regularly reviews compliance of their assigned customers with these credit limits. In some cases, advance payments are required for deliveries to avoid credit risks. There are no significant concentrations of credit risks arising from individual customers or regions.

For some trade receivables, the Group has collateral, such as guarantees, financial securities and suretyship contracts to which the Group can resort under the contractual arrangements should a counterparty default on its payment obligations.

Impairment of Financial Assets

Trade Receivables and Contract Assets

Trade receivables and contract assets, in particular, are required to be measured according to the model for recognition of expected credit losses.

The Sartorius Group applies the simplified impairment approach according to IFRS 9 for trade receivables and contract assets, thus taking lifetime expected credit losses into account. The impairment model starts with an analysis of the actual historical credit loss rates. These are adjusted, taking into consideration forward-looking information and the effects of current changes in the macroeconomic environment, if significant. Due to the immaterial level of historical credit losses, the Group currently determines the expected credit losses for its portfolio of trade receivables as a whole. However, historical loss rates are analyzed regularly in more detail in order to apply different loss rates to different portfolios. Contract assets relate to projects for typical Sartorius customers so that the Group assumes that the loss rates applied to trade receivables appropriately approximate the loss rates of the contract assets. Accordingly, there is no further differentiation between trade receivables and contract assets.

On this basis, the allowances for trade receivables and contract assets were determined as follows for the year ended December 31, 2021, and as of the previous reporting date on December 31, 2020:

31.12.2020 in T€	Not due	1-30 days overdue	31-60 days overdue	61-90 days overdue	More than 90 days overdue	Total
Gross carrying amount of trade receivables	259,304	16,431	3,187	8,682	36,391	323,995
Gross carrying amount of contract assets	6,159	0	0	0	0	6,159
Impairment loss allowance	388	245	702	226	14,333	15,895

31.12.2021 in T€	Not due	1-30 days overdue	31-60 days overdue	61-90 days overdue	More than 90 days overdue	Total
Gross carrying amount of trade receivables	324,582	29,372	26,259	18,569	36,641	435,423
Gross carrying amount of contract assets	4,106	0	0	0	0	4,106
Impairment loss allowance	741	64	594	92	14,045	15,535

The impairments in fiscal 2021 include those related to trade receivables measured at fair value though other comprehensive income which amount to approximately €3.4 million (prior year: €3.9 million).

The expected credit losses are determined based on a loss rate of 0.05%. In addition, impairments are determined on the basis of individual assessments. Days overdue are one essential criterion in this context. A default is generally presumed when there is no longer any reasonable expectation of recovering a financial asset. In such a case, the respective receivables are derecognized.

The movements in the allowance for impairment losses on trade receivables and contract assets are presented below:

€ in K	2021	2020
Valuation allowances at January 1	-15,895	-9,686
Net remeasurement of loss allowance recognized in profit or loss	-4,739	-9,105
Derecognition and consumption	439	507
Recoveries of amounts previously impaired	5,286	3,382
Currency effects	-548	395
Changes in scope of consolidation	-79	-1,388
Valuation allowances at December 31	-15,535	-15,895

Cash and Cash Equivalents

Besides trade receivables, cash and cash equivalents were the most significat financial assets in the Group's statement of financial position as of December 31, 2021, as was the case in the previous year. The expected credit losses are monitored at regular intervals. Due to the high creditworthiness of the counterparties and the short maturities or contract terms, which are short by definition, any impairment that would theoretically have to be recognized for these financial assets is immaterial. Therefore, no impairment is recognized for cash and cash equivalents.

Other Financial Assets

For the other financial assets measured at amortized cost, as in the previous year, no impairment was recognized as of December 31, 2021, for the twelve months of expected credit losses due to immaterial historical credit losses. In the event of a significant increase in credit risk, which is generally presumed when a payment is more than 30 days past due, the lifetime expected credit losses are recognized for the respective financial asset. A default is generally presumed if there is no longer any reasonable expectation of recovering a financial asset. This is generally presumed when payments are more than 90 days past due. As of the reporting date, there are no indications of increases in credit risk to a material extent. The carrying amounts of the financial assets reflect the maximum credit loss for these assets at the end of the fiscal year.

41. Other Risks Associated with Financial Instruments

As of the reporting date, the Sartorius Group was exposed to risks arising from the volatility of the share price of Sartorius Stedim Biotech S.A. because of the contingent consideration in connection with the acquisition of BIA Separations. As of the reporting date, there were no other significant risks of volatility in share prices; only vested portions of share-based payments are linked directly to the price development of Sartorius stock.

For details on other types of risk, please refer to the Group Management Report.

42. Share-based Payments

Within the Sartorius Group, share-based payments are made in the form of so-called phantom stock units at Sartorius AG.

The phantom stock units are virtual options on the shares of Sartorius AG. Specifically, the company's phantom stock plan credits each member of the Executive Board at the beginning of every year with phantom stock units valued at an agreed amount. These phantom stock options may be exercised no earlier than four years after this sum has been credited and only if certain conditions with respect to the performance of Sartorius AG shares are met. If an Executive Board member exercises an option, the number of phantom stock units granted is evaluated at the current stock exchange price. The amount paid out is capped at 2.5 times the grant price. The fair value of the phantom stock units was measured using a Black-Scholes model and is disclosed as follows:

Components with a long-term incentive effect	Number of phantom stock units	Fair value at year-end on Dec. 31, 2021 € in K	Fair value at year-end on Dec. 31, 2020 € in K	Paid out € in K
Tranche for fiscal 2017	6,620	0	1,167	1,167
Tranche for fiscal 2018	5,647	1,134	1,134	0
Tranche for fiscal 2019	5,413	1,541	1,541	0
Tranche for fiscal 2020	3,332	1,585	1,078	0
Tranche for fiscal 2021	2,084	1,135	0	0
	23,096	5,395	4,920	1,167

In fiscal 2021, expenses relating to granting and measuring phantom stock units amounted to €1,642 K (prior year: €1,787 K). As in the prior year, no phantom stock units were exercisable on the reporting date. All phantom stock units granted in the reporting year were attributable to members of the Executive Board. Based on resolutions of the Supervisory Board on December 5, 2019, Dr. Kreuzburg was granted a supplementary compensation component, which provides for transferring shares of the company to him. These share-based payments are subject to the rules of IFRS 2. Based on the agreed conditions, the resulting amounts are to be spread as an employee benefits expense from the respective grant date over the full vesting period of the respective plan. In fiscal 2021, an amount of €1,320 K (prior year: €1,323 K) was therefore recognized as an employee benefits expense resulting from the grant of shares. For further details on the phantom stocks and the share-based remuneration of Dr. Kreuzburg, please refer to the Remuneration Report.

Other Disclosures

The consolidated financial statements were prepared on a going-concern basis.

The exemption options provided by Section 264 (3) of the German Commercial Code (HGB) were applied to the annual financial statements reported by Sartorius Lab Holding GmbH, Sartorius Weighing Technology GmbH, and Sartorius Corporate Administration GmbH, all based in Göttingen, Germany, for the year ended December 31, 2021.

The exemption options provided by Section 264b of the HGB were applied to the annual financial statements reported by SIV Weende GmbH & Co. KG, SIV Grone 1 GmbH & Co. KG, and Sartorius Lab Instruments GmbH & Co. KG, all based in Göttingen, Germany, for the year ended December 31, 2021.

Material Events after the Reporting Date

Acquisition of ALS Automated Lab Solutions GmbH

On January 3, 2022, the Group acquired the majority of shares and voting rights in ALS Automated Lab Solution GmbH and strengthens thereby its bioanalytics portfolio of the LPS Division with an additional complementary element. The laboratory technology company based in Jena, Germany, develops, manufactures, and markets solutions for the automated analysis, selection, and isolation of cells. With these solutions, ALS enables life science customers to significantly reduce time to result and cost in cell line development and antibody discovery. Other application areas are the development of cell and gene therapeutics as well as rare single cell molecular diagnostics in cancer and prenatal research. The company employed some 30 employees as of the acquisition date and generated sales revenue in the high single-digit million-euro area in 2021.

The purchase price for the acquired stake of 62.5% of ALS Automated Lab Solutions GmbH amounted to approx. €24 million (net) and was paid in cash. The parties further agreed on options according to which the acquisition of the remaining 37.5% of the shares is planned in 2026. The exercise price of the options depends on the future sales revenues of the acquired business. In view of the short period between the acquisition and the preparation of the consolidated financial statements, no preliminary revaluation of the acquired net assets and goodwill is available. It is expected that the intangible assets to be recognized separately will primarily reflect technologies and customer relationships. Any goodwill may reflect the expansion of the bioanalytics portfolio and further synergies from the combination as well as intangible assets not recognizable separately, such as the acquired workforce. A goodwill is not expected to be deductible for tax purposes. Expenses directly attributable to the acquisition of €0.1 million were recognized in other operating expenses in 2021. The transaction has not been recognized in the consolidated financial statements for fiscal 2021 as the entity will be consolidated as of the acquisition date.

Acquisition of Chromatography Business of Novasep

On February 7, 2022, the Group closed the acquisition of the Novasep chromatography division. Antitrust approval required for this transaction was granted by the U.S. Federal Trade Commission end of January 2022. The business acquired achieved sales revenue of around €40 million at double-digit profit margins in 2020. As of the acquisition date, approximately 100 employees were taken on as part of the Group workforce. The majority of these currently work at the acquired entity Novasep Equipment Solutions in Pompey in northern France and some in the USA, China, and India.

The chromatography business acquired comprises batch and intensified chromatography systems, and primarily focuses on applications for smaller molecules, such as oligonucleotides, peptides, and insulin. It is complementary to the Group's chromatography offering and will be integrated in the Bioprocess Solutions Division.

The purchase price for the acquired chromatography business amounted to approx. €45 million and was paid in cash. Expenses directly attributable to the acquisition of €6.2 million were recognized in other operating expenses through profit or loss in prior years. In view of the short period between the acquisition and the preparation of the consolidated financial statements, no preliminary revaluation of the acquired net assets and goodwill is available. It is expected that the material assets will be intangible assets for technologies (preliminary estimate: about €18.5 million) and customer relationships (preliminary estimate: about €8 million). Any goodwill may reflect the expansion of the product portfolio as well as intangible assets not recognizable separately, such as the workforce acquired. Goodwill is not expected to be deductible for tax purposes. The transaction was not yet recognized in the consolidated financial statements for fiscal 2021 as the entity will be consolidated as of the acquisition date.

No other material events occurred up to the end of the preparation of these consolidated financial statements.

Declaration According to Section 314 (1) No. 8 of the German Commercial Code (HGB)

The declaration prescribed by Section 161 of the German Stock Corporation Act (AktG) was submitted on December 9, 2021, and made available to the shareholders of Sartorius AG on the company's website at www.sartorius.com.

Members of the Supervisory Board and the Executive Board

The members of the Supervisory Board and the Executive Board are listed at the end of this section as are the further additional disclosures pursuant to Section 285 no. 10 of the German Commerical Code (HGB).

Number of Employees

This table shows the average workforce employed during the fiscal year:

	2021	2020
Bioprocess Solutions	9,536	7,163
Lab Products & Services	2,974	2,730
Total	12,510	9,894

Auditors' Fee

In fiscal 2020 and 2021, the following fees were incurred by the Group for the auditors, KPMG AG:

€ in K	2021	2020
Audits	943	766
Tax consultation services	0	0
Other attestation services	91	63
Other services	0	0
	1,034	829

The fees for statutory audits include the audit review fee of €106 K (prior year: €100 K) for the first-half financial report pursuant to Section 115 (5) of the German Securities Trading Act (WpHG), as well as other services directly prompted by the audit.

Related Companies and Persons

The Group companies included in the consolidated financial statements carry out business activities and transactions in related party relationships as defined by IAS 24. In particular, this concerns transactions with non-consolidated subsidiaries that are generally entered into on an arm's length basis. A long-term service contract exists with an affiliated company. For this contract, expenses of €11.7 million were incurred and reported in the statement of profit or loss in the reporting year (prior year: €8.5 million). Details on the transactions completed in the reporting year and the balances outstanding on the reporting date are provided in the relevant sections of these Notes to the Financial Statements, specifically in Note 29.

According to IAS 24, related persons are those individuals responsible for the planning, management and control of a reporting entity. In particular, such persons include the members of the Executive Board and of the Supervisory Board of Sartorius AG. In the reporting year, the total remuneration of the Supervisory Board members was €1,057 K (prior year: €1,049 K); that of the Executive Board members amounted to €5,606 K (prior year: €4,653 K). The remuneration of former managing directors and members of the Executive Board and their surviving dependents was €853 K (prior year: €1,861 K). The pension obligations to former managing directors and members of the Executive Board and their surviving dependents totaled €9,104 K (prior year: €8,764 K). For details on remuneration, please refer to the Remuneration Report, which is an integral part of the combined Group Management Report. In addition to their Supervisory Board remuneration, the employee representatives who are employees of the Sartorius Group receive compensation that is not related to their service on the Supervisory Board.

The total remuneration of the Executive Board members according to IFRS is shown in the following table:

€ in K	2021	2020
Short-term benefits (excl. share-based remuneration)	4,218	3,696
Post-employment benefits	490	457
Other long-term benefits	650	323
Share-based payments	2,962	3,111
Total remuneration	8,320	7,587

Partial payments on multi-year variable remuneration of the Executive Board members:

€ in K	2021	2020
Balance as of Jan. 1 of a fiscal year	470	375
Partial payments deducted	–190	–185
Partial payments effected	327	280
Balance as of Dec. 31 of a fiscal year	607	470

The total remuneration of the Supervisory Board members is as follows:

€ in K	2021	2020
Short-term benefits (excl. share-based remuneration)	1,057	1,049
Post-employment benefits	0	0
Other long-term benefits	0	0
Share-based payments	0	0
Total remuneration	1,057	1,049

Proposal for Appropriation of Profit

The Supervisory Board and the Executive Board will submit a proposal to the Annual Shareholders' Meeting to appropriate the retained profit of €198,487,285.16 reported by Sartorius AG for the year ended December 31, 2021, as follows:

	€
Payment of a dividend of €1.25 per ordinary share	42,782,511.25
Payment of a dividend of €1.26 per preference share	43,079,214.78
Unappropriated profit carried forward	112,625,559.13
	198,487,285.16

Declaration of the Executive Board

We declare to the best of our knowledge that the consolidated financial statements for fiscal 2021 present a true and fair view of the actual net worth, financial situation and profitability of the Group in accordance with the accounting standards used in preparing these statements. We also certify that the progress of the Group's business, including its business performance and its situation, are represented accurately in the Group Management Report in all material respects and present the most important opportunities and risks of the Group's future development during the fiscal year.

Göttingen, February 8, 2022

Sartorius Aktiengesellschaft

The Executive Board

Dr. Joachim Kreuzburg Rainer Lehmann Dr. René Fáber John Gerard MacKay

Independent Auditors' Report

Report on the Audit of the Consolidated Financial Statements and of the Group Management Report

Opinions

We have audited the consolidated financial statements of Sartorius Aktiengesellschaft, Göttingen, and its subsidiaries (the Group) – which comprise the consolidated statement of financial position as at December 31st, 2021, the consolidated statement of profit and loss, the consolidated statement of comprehensive income, consolidated statement of cash flows and the consolidated statement of changes in equity for the financial year from 1 January 2021 to 31 December 2021, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the report on the situation of the Company and the Group (hereinafter referred to as the "group management report") of Sartorius Aktiengesellschaft, including the Remuneration Report contained in the section "Remuneration Report" of the group management report, along with the related disclosures, for the financial year from 1 January 2021 to 31 December 2021.

In accordance with the German legal requirements we have not audited the content of the parts of the group management report mentioned in the section on "Other Information" of our Independent Audit Report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2021, and of its financial performance for the financial year from 1 January 2021 to 31 December 2021, and

- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the content of the group management report mentioned in the section "Other Information."

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Section 317 HGB and the EU Audit Regulation No. 537/2014 (referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January 2021 to 31 December 2021. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Recoverability of the Carrying Amount of Goodwill

The accounting policies as well as the assumptions made are disclosed in the notes to the consolidated financial statements in note 15. Disclosure of the amount of goodwill is provided in the notes to the consolidated financial statements in note 15.

THE FINANCIAL STATEMENT RISK

As at 31 December 2021, goodwill totaled EUR 1,362 million, thereby comprising 24% of the balance sheet total.

Goodwill is tested for impairment annually at the level of the operating segments Bioprocess Solutions (Goodwill EUR 1,011 million) and Lab Products & Services (Goodwill EUR 351 million). The carrying amount is thereby compared with the recoverable amount of the respective operating segments. If the carrying amount exceeds the recoverable amount of the respective operating segment, an impairment is recorded. The recoverable amount is the higher of the fair value less the costs to sell and value in use of the operating segment. The impairment test was carried out as at 30 November 2021.

The goodwill impairment test is complex and is based on a number of judgemental assumptions. These include, among others, the expected business and earnings development of the operating segments for the upcoming 4 years, the assumed long-term growth rates and the discount rate used.

Given the amount of goodwill and the complexity of the impairment test, there is the risk for the financial statements that an impairment has not been identified. In addition, there is the risk that the disclosures in the notes associated herewith are not appropriate.

OUR AUDIT APPROACH

With the support of our valuation specialists, we assessed, among other things, the appropriateness of the significant assumptions as well as the Company's valuation model. This included a discussion of the expected development of the business and results as well as of the assumed underlying long-term growth rates with those responsible for the planning process so as to gain an understanding of the assumptions made by the Company. In addition, reconciliations were made with the budget 2021 prepared by the Executive Board and approved by the Supervisory Board, as well as with the planning prepared by the Executive Board for the next 4 years. Furthermore, we assessed the consistency of the assumptions with external market assessments.

We also assessed the Company's planning accuracy by comparing projections for previous financial years with the actual results realized and analyzed deviations. As small changes in the discount rate can have a substantial impact on the results of the impairment test, we have compared the discount rate with our own assumptions and publicly available information.

To provide for the mathematical accuracy of the valuation model utilized, we validated the Company's calculations on the basis of our own calculations.

To reflect the existing uncertainty with respect to forecasts as well as the earlier valuation date for the impairment test, we have assessed the effect of possible changes in the discount rate, sales revenue and earnings development and the long-term growth rate on the recoverable amount (sensitivity analysis) by calculating alternative scenarios and comparing these with the Company's valuation results.

Finally, we assessed whether the disclosures in the notes with respect to the recoverability of the carrying amount of the goodwill are appropriate.

OUR OBSERVATIONS

The underlying valuation model used in the impairment test of goodwill is appropriate and consistent with the applicable accounting principles.

The Company's assumptions and parameters underlying the valuation are within an acceptable bandwidth and are, on the whole, balanced.

The disclosures in the notes associated herewith are appropriate.

Other Information

Management and the Supervisory Board are responsible for the other information. The other information comprises the following parts of the group management report, the content of which has not been audited:

- the non-financial statement, contained in the section on the non-financial statement of the group management report,

- the corporate governance statement, contained in the section on the corporate governance statement of the group management report.

The other information additionally covers the remaining parts of the annual report.

The other information does not comprise the audited consolidated financial statements and group management report and our respective auditor's report.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or

- otherwise appears to be materially misstated.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

Management is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Management and the Supervisory Board are also responsible for the preparation of the Remuneration Report, along with the related disclosures, which is contained in a separate section of the group management report and complies with the requirements of Section 162 of the German Stock Corporation Law (AktG). In addition, they are responsible for such internal control as they consider necessary to enable the preparation of a Remuneration Report, including the related disclosures, that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by management in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance in accordance with Section 317 (3A) HGB on the Electronic Reproduction of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes

We have performed an assurance engagement in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the electronic reproduction of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the provided file ("sartoriusag. zip"; (SHA256-algorithm: 2f3e62534f4898c951688de56871ac6d2f8848828078153132b62110da20abc5 hash value) and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance engagement only extends to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in this reproduction nor any other information contained in the above-mentioned electronic file.

In our opinion, the reproduction of the consolidated financial statements and the group management report contained in the above-mentioned electronic file and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the above-mentioned file beyond this reasonable assurance conclusion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from 1 January 2021 to 31 December 2021 contained in the "Report on the Audit of the Consolidated Financial Statements and of the Group Management Report" above.

We conducted our assessment of the reproduction of the consolidated financial statements and the group management report contained in the above-mentioned electronic file in accordance with Section 317 (3a) HGB and the Exposure Draft of the IDW Assurance Standard: Assurance in accordance with Section 317 (3a) HGB on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes (ED IDW AsS 410 (10/2021)) and the International Standard on Assurance Engagements

3000 (Revised). Accordingly, our responsibilities are further described below. Our audit firm has applied the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QS 1).

The Company's management is responsible for the preparation of the ESEF documents including the electronic reproduction of the consolidated financial statements and the group management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the Company's management is responsible for the internal controls they consider necessary to enable the preparation of ESEF documents that are free from material non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format, whether due to fraud or error.

The Supervisory Board is responsible for overseeing the process of preparation of the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of Section 328 (1) HGB, whether due to fraud or error. We exercise professional judgment and maintain professional skepticism throughout the assurance engagement. We also:

- Identify and assess the risks of material non-compliance with the requirements of Section 328 (1) HGB, whether due to fraud or error, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance conclusion.

- Obtain an understanding of internal control relevant to the assessment of the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e. whether the electronic file containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815 in the version applicable on the reporting date relating to the technical specification for this electronic file.

- Evaluate whether the ESEF documents enable an XHTML reproduction with content equivalent to the audited consolidated financial statements and the audited group management report.

- Evaluate whether tagging the ESEF documents with Inline XBRL technology (iXBRL) in accordance with Articles 4 and 6 of Commission Delegated Regulation (EU) 2019/815 in the version applicable on the reporting date provides an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on 26 March 2021. We were engaged by the Supervisory Board on 9 December 2021. We have been the group auditor of the Sartorius AG without interruption since the financial year 2015.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

We provided the following services not specified in the consolidated financial statements or in the group management report in addition to auditing the annual financial statements of the Company and the Group companies controlled by it:

In addition to the consolidated financial statements, we audited the annual financial statements of Sartorius Aktiengesellschaft and carried out various audits of annual financial statements of subsidiaries. Reviews of interim financial statements and project-accompanying audits of IT-based accounting-related systems were also performed. In addition, contractual audits have been carried out, such as the review of the non-financial consolidated statement.

Other Matters – Use of the Auditor's Report

Our auditor's report must always be read in connection with the audited consolidated financial statements, the audited group management report and the audited ESEF documents. The consolidated financial statements and group management report converted into the ESEF format – including the versions to be published in the German Federal Gazette (Bundesanzeiger) – are only electronic reproductions of the audited consolidated financial statements and the audited group management report and do not replace them. In particular, the ESEF report and our opinion in it must be used only in conjunction with the audited ESEF documents provided in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Frank Thiele.

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Original German version signed by:

Tonne Error! Reference source not found. (German Public Auditor)	Error! Reference source not found. Error! Reference source not found. (German Public Auditor)

Executive Board and Supervisory Board

During Fiscal 2021

Executive Board

Dr. Joachim Kreuzburg
Dipl.-Ingenieur (Graduate Engineer)
CEO and Chairman
Executive for Labor Relations
Corporate Strategy, Human Resources, Corporate Research, Legal Affairs & Compliance and Corporate Communications
Born April 22, 1965
Resident of Göttingen, Germany
Member since November 11, 2002
"Sprecher" (Spokesman) from May 1, 2003, to November 10, 2005
Chairman since November 11, 2005
Appointed until November 10, 2025

Rainer Lehmann
Dipl.-Kaufmann (Graduate in Business Administration)
Finance, IT and Business Processes
Born March 2, 1975
Resident of Brightwaters, New York, USA
Member since March 1, 2017
Appointed until February 28, 2025

Dr. René Fáber
Dipl.-Chemiker (Graduate Chemical Engineer)
Bioprocess Solutions Division
Born July 18, 1975
Resident of Göttingen, Germany
Member since January 1, 2019
Appointed until December 31, 2026

John Gerard Mackay
B.Sc. Honors Degree in Biochemistry
Master of Education
Lab Products & Services Division
Born May 11, 1962
Resident of Glasgow, Scotland, UK
Member since January 1, 2019
Appointed until December 31, 2023

Supervisory Board

Dr. Lothar Kappich
Dipl.-Ökonom (Graduate Economist)
Chairman
Freelance Consultant, formerly Managing Director of ECE Projektmanagement GmbH & Co. KG in Hamburg, Germany
Resident of Hamburg, Germany

Manfred Zaffke
Dipl.-Volkswirt (Graduate Political Economist)
Vice Chairman
First Authorized Representative of the German Metalworkers' Union (IG Metall) in the southern Lower Saxony/Harz region in Northeim, Germany
Resident of Osterode am Harz, Germany

Annette Becker
Personalfachkauffrau (HR Specialist)
Chairwoman of the Employees' Council of Sartorius Corporate Administration GmbH in Göttingen, Germany
Chairwoman of the Group Employees' Council of Sartorius AG in Göttingen, Germany
Resident of Göttingen, Germany

Hermann Jens Ritzau
Chairman of the Employees' Council of Sartorius Lab Instruments GmbH & Co. KG in Göttingen, Germany
Member since March 1, 2021
Resident of Katlenburg-Lindau, Germany

Dietmar Müller
Betriebswirt (VWA Göttingen) (Business Economist)
Chairman of the Employees' Council of Sartorius Stedim Biotech GmbH in Göttingen, Germany
Resident of Gleichen, Germany

Dr. Daniela Favoccia
Attorney and Partner of the Hengeler Mueller partnership of lawyers in Frankfurt am Main, Germany
Resident of Frankfurt am Main, Germany

Petra Kirchhoff
Dipl.-Volkswirtin (Graduate Political Economist)
Head of Corporate Communications and Investor Relations
Sartorius Corporate Administration GmbH in Göttingen, Germany
Resident of Göttingen, Germany

Karoline Kleinschmidt
Dipl.-Sozialwirtin (Graduate Social Economist)
Secretary and First Authorized Representative of the
German Metalworkers' Union (IG Metall) in the Alfeld-Hameln-Hildesheim region in Hameln, Germany
Resident of Hanover, Germany

Professor David Raymond Ebsworth, Ph.D.
B.Sc. in Chemistry and German; Ph.D. in Comparative Industrial Relations
Consultant, especially in the Healthcare and Financial Investment Industry
Resident of Overath, Germany

Ilke Hildegard Panzer
M.Sc. in Engineering, Computer and Systems Engineering
Chief Executive Officer of Assurance Laboratories LLC in Milwaukee, Wisconsin, USA
Resident of Fredonia, Wisconsin, USA

Prof. Dr. Thomas Scheper
Dipl.-Chemiker (Graduate Chemical Engineer)
University professor and deputy director of the Institute of
Technical Chemistry, Gottfried Wilhelm Leibnitz University in Hanover, Germany
Resident of Hanover, Germany

Prof. Dr. Klaus Rüdiger Trützschler
Dipl.-Wirtschaftsmathematiker (Graduate Business Mathematician)
and Dipl.-Mathematiker (Graduate Mathematician)
Resident of Essen, Germany

Uwe Bretthauer
Dipl.-Ingenieur (Graduate Engineer)
Member of the Employees' Council of Sartorius Lab Instruments GmbH & Co. KG in Göttingen, Germany
Member until February 28, 2021
Resident of Göttingen, Germany

Committees of the Supervisory Board

Executive Task Committee
Dr. Lothar Kappich (Chairman)
Manfred Zaffke
Annette Becker (member since March 26, 2021)
Prof. Dr. Klaus Rüdiger Trützschler

Uwe Bretthauer (member until February 28, 2021)

Audit Committee
Prof. Dr. Klaus Rüdiger Trützschler (Chairman)
Manfred Zaffke
Dietmar Müller (member since March 26, 2021)
Dr. Lothar Kappich

Uwe Bretthauer (member until February 28, 2021)

Conciliation Committee
Dr. Lothar Kappich (Chairman)
Manfred Zaffke
Annette Becker (member since March 26, 2021)
Prof. Dr. Klaus Rüdiger Trützschler

Uwe Bretthauer (member until February 28, 2021)

Nomination Committee
Dr. Lothar Kappich
Dr. Daniela Favoccia
Prof. Dr. Klaus Rüdiger Trützschler

Positions Held by the Members of the Executive Board as of December 31, 2021

Dr. Joachim Kreuzburg

Positions held within the Group:
Président-Directeur Général (CEO) of:

- Sartorius Stedim Biotech S.A., France

On the Supervisory Board of:

- Sartorius Stedim Biotech GmbH, Germany, Chairman

On the Beirat (Advisory Board) of:

- LabTwin GmbH, Germany, Chairman

On the Board of Directors of:

- Sartorius North America, Inc., USA, Chairman

External positions:
On the Supervisory Board of:

- Carl Zeiss AG, Germany

On the Verwaltungsrat (Administrative Board) of:

- Ottobock Management SE, Germany

On the Wirtschaftsbeirat (Economic Advisory Board) of:

- Norddeutsche Landesbank, Germany

Rainer Lehmann

Positions held within the Group:
On the Board of Directors of:

- Sartorius Corporation, USA
- Sartorius North America, Inc., USA
- Sartorius Stedim North America, Inc., USA
- Essen Instruments, Inc., USA
- Sartorius BioAnalytical Instruments, Inc., USA
- Sartorius Stedim Filters, Inc., Puerto Rico

External positions:
On the Unternehmerbeirat (Employers' Advisory Board) of:

- Gothaer Versicherungsbank VVaG, Germany

On the Regionalbeirat (Regional Advisory Board) of:

- Commerzbank AG, Germany

Dr. René Fáber
Positions held within the Group:
On the Conseil d'Administration (Board of Directors) of:

- Sartorius Stedim Biotech S.A., France

On the Supervisory Board of:

- Xell AG, Germany, Chairman
- Sartorius Stedim Biotech GmbH, Germany, Vice Chairman

On the Beirat (Advisory Board) of:

- Sartorius CellGenix GmbH, Germany, Chairman

On the Board of Directors of:

- Sartorius Stedim (Shanghai) Trading Co., Ltd., China
- Sartorius Stedim Japan K.K, Japan
- Sartorius Korea Biotech Co., Ltd., South Korea
- Sartorius Korea Operations LLC, South Korea

On the Comité Exécutif (Executive Committee) of:

- Sartorius Stedim FMT S.A.S., France, Chairman

On the Advisory Board of:

- BIA SEPARATIONS d.o.o., Slovenia, Chairman

External positions:
On the Beirat (Advisory Board) of:

- Curexsys GmbH, Germany

John Gerard Mackay
Positions held within the Group:
On the Board of Directors of:

- Essen Instruments, Inc., USA
- Sartorius BioAnalytical Instruments, Inc., USA
- Sartorius Biohit Liquid Handling Oy, Finland
- Sartorius Stedim BioOutsource Ltd., Scotland, UK
- Sartorius Scientific Instruments (Beijing) Co., Ltd., China, Vice Chairman
- Sartorius Hong Kong Ltd., China
- Sartorius ForteBio (Shanghai) Co., Ltd., China
- Sartorius (Shanghai) Trading Co., Ltd., China
- Sartorius Japan K.K, Japan
- Sartorius Korea Ltd., South Korea

External positions:
None

Positions Held by the Members of the Supervisory Board as of December 31, 2021

Dr. Lothar Kappich
Positions held within the Group:
On the Conseil d'Administration (Board of Directors) of:

- Sartorius Stedim Biotech S.A., France

External positions:
None

Manfred Zaffke
Positions held within the Group:
None

External positions:
On the Supervisory Board of:

- Demag Cranes & Components GmbH, Germany
- Konecranes Holding GmbH, Germany

Annette Becker
None

Hermann Jens Ritzau
None

Dietmar Müller
Positions held within the Group:
On the Supervisory Board of:

- Sartorius Stedim Biotech GmbH, Germany

External positions:
Deputy member of the General Assembly of:

- Gesellschaft für Gemeindeentwicklung und Wirtschaftsförderung Gleichen mbH (company for community and business development), Germany

Dr. Daniela Favoccia
None

Petra Kirchhoff
Positions held within the Group:
None

External positions:
On the Stock Exchange Council (Börsenrat) of:

- The Hanover Stock Exchange of Lower Saxony (Niedersächsiche Börse zu Hannover), Germany

Karoline Kleinschmidt
None

Professor David Raymond Ebsworth, Ph.D.
Positions held within the Group:
None

External positions:
On the Board of Directors of:

- Verona Pharma plc, UK, Chairman
- Actimed Therapeutics Ltd., UK, Chairman
- Kyowa Kirin International plc, UK
- Interpharma Investments Ltd., British Virgin Islands

On the Supervisory Board of:

- Synlab AG, Germany, Chairman

On the Verwaltungsrat (Administrative Board) of:

- Opterion Health AG, Switzerland, Chairman

Ilke Hildegard Panzer
None

Prof. Dr. Thomas Scheper
None

Prof. Dr. Klaus Rüdiger Trützschler
Positions held within the Group:
None

External positions:
On the Supervisory Board of:

- Zwiesel Kristallglas AG, Germany, Chairman

On the Beirat (Advisory Board) of:

- Odenwald Faserplatten GmbH, Germany

- SHGS Beteiligungs GmbH, Germany (member until December 31, 2021)

Supplementary Information

04

Glossary

Industrial | Product-specific Terms

Antibody drug conjugates (ADC)
New class of highly potent biological drugs built by attaching a small molecule anticancer drug or another therapeutic agent to an antibody, with either a permanent or a labile linker

Bags, single-use
Plastic disposable bag used in bioreactors and for storing liquids, such as culture media, intermediate products and biopharmaceuticals

Bioanalytics, also bioanalysis
Covers analytical methods for investigating biological macromolecules and their changes. In pharmaceutical research, bioanalytical methods are used particularly for identification, quantification and characterization of biomolecules

Biopharmaceuticals, also biologics or biological medical drugs
Any pharmaceutical drug products manufactured using biotech means and genetically modified organisms

Bioprocessing technology
Covers the process engineering aspects of biotech manufacturing operations. Such aspects include general planning and implementation of a production process, its monitoring and control, and all technologies required for these purposes

Bioreactor
In English-speaking countries, a bioreactor is a vessel used for cultivating animal or human cells in a culture medium. In non-English-speaking countries, the term bioreactor is also used synonymously with the term fermenter to denote a system used to multiply microorganisms. In either case, the vessel is used to obtain cells, parts of these or one of their metabolites

CAR T cells
New class of highly effective biopharmaceuticals used in cell and gene therapy in which the patient's own T cells are collected from the blood and genetically modified so that they can identify and destroy cancer cells

Cell analysis
Covers powerful methods for the analysis of cells and permits deeper insights into cell biological processes for medical and biotechnological applications

Cell clone
A population of genetically identical cells obtained by cellular division of one specific cell

Cell culture media
Growth media that provide cells and organisms the nutrients needed to support their propagation in cultures

Cell line technology
Covers various technologies used within the scope of analytical and process steps to develop stable and productive cell lines

Chromatography
A key process step for downstream processing of active pharmaceutical ingredients of biopharmaceuticals; this step isolates the product from fermentation or cell culture broth (known as "capture") and covers subsequent purification steps (referred to as "polishing")

Downstream processing
Collective term for the various steps that follow fermentation or cell cultivation (upstream processing) in the production of biopharmaceuticals; for example, separation, purification and concentration

EMA – European Medicines Agency
Agency of the European Union for evaluating and monitoring pharmaceuticals

FDA - Food and Drug Administration
U.S. regulatory agency responsible for ensuring the safety and efficacy of human and veterinary pharmaceuticals, biological products, medical devices and foods

Fermentation
Technical process used to produce or transform intra- or extra-cellular substances with the help of microorganisms

Life sciences
Collective term for all natural sciences dealing with the study of processes or structures of living organisms or in which such organisms are involved. This term is often commonly used in relation with application-oriented fields of science that focus on manufacturing pharmaceuticals using biotechnology.

Membrane chromatography
Selective separation of mixtures of substances by adsorption to specifically modified membranes (membrane adsorbers) in a flowing system

Membrane (filter)
Thin film or foil made of polymers; because of the porous structure, this film is suitable for filtration applications.

Monoclonal antibodies
Synthetic antibodies used, in particular, in the treatment of cancer, HIV and autoimmune diseases

Purification
In downstream processing, a step covering all process technologies used after cell harvesting to further separate an active pharmaceutical compound from other components present in fermentation or cell culture broth in order to obtain a pure and concentrated final product

Single-use | Reusable product
In biopharmaceutical production, the term "single-use" defines an item intended to be used only one time. Such an item consists of plastic and is disposed of after use. By contrast, reusable products are made of stainless steel or glass and entail time and effort to clean them afterwards for repeated use.

Upstream processing
In the manufacture of biopharmaceuticals, designates the various steps that take place for seeding and propagating cells that produce an active pharmaceutical ingredient

Validation
Documented verification that systems, devices and processes reproducibly deliver the desired result

Business | Economic Terms

Amortization
Amortization relates exclusively to potential reductions in the value of goodwill and the allocation of the purchase price to intangible assets acquired as carried out according to IFRS 3

CAPEX ratio
Investment payments in relation to sales revenue for the same period

Cash flow
The amount of cash earned after paying all expenses and taxes; i.e., the cash balance of inflows and outflows of funds

Cash pooling agreements
The term "cash pooling" or "liquidity bundling" refers to intra-group liquidity balancing by a central financial management system, usually assumed by the parent company of a group, which withdraws excess liquidity from the group companies or offsets liquidity shortfalls by loans. It is an element of cash management.

Compliance
Observance of applicable laws, codes and other relevant rules and regulations

Constant currencies; currency-adjusted
In the presentation of figures, identical exchange rates are used for each of the comparative periods.

Covenants
Collective term for additional contractual clauses or collateral contracts in loan agreements or bond agreements with companies. Such agreements on covenants impose certain obligations on borrowing parties or debtors

D&O insurance
Directors' and Officers' liability insurance that covers Supervisory and Executive Board members and managerial employees

EBITDA
Earnings before interest, taxes, depreciation and amortization; in this context, amortization refers exclusively to the purchase price allocation (PPA) to intangible assets acquired according to IFRS 3

EBITDA margin
The ratio of EBITDA (earnings before interest, taxes, depreciation and amortization) to sales

Equity ratio
The ratio of equity to the balance sheet total

Extraordinary items
Exceptional or one-time expenses and income, such as acquisition costs, restructuring costs and other non-operating expenses

Factoring program
Sale of trade receivables to a bank or a financial service institute

Fixed assets
The sum of intangible assets, property, plant and equipment and financial assets

Goodwill
The difference between the price paid for a company or business and its net assets; a form of intangible asset

Holding company
A parent company that exists for the purpose of owning a controlling interest or shares in several legally independent subsidiaries that are subordinate within the organizational hierarchy; this holding company conducts its business exclusively through these subsidiaries

Market capitalization
The total number of shares outstanding of both classes issued by the company, multiplied by the corresponding share price

Net debt
Liabilities to banks, including note loans ("Schuldscheindarlehen"), as well as lease liabilities less cash and cash equivalents

Normalized financial result
Financial result excluding fair value adjustments of hedging instruments, as well as excluding non-periodic expenses and income

Normalized income tax
Underlying income tax, based on underlying profit before tax and on non-cash amortization.

Order intake
All customer orders contractually concluded and booked during the respective reporting period

Prime Standard
Market segment of the Frankfurt Stock Exchange with high, internationally accepted transparency requirements to meet the needs of companies seeking to attract international investors

Ratio of net debt to underlying EBITDA
Quotient of net debt and underlying EBITDA over the past 12 months, including the pro forma amount contributed by acquisitions for this period

Supply chain management
Setup and coordination of integrated flows of materials, information and finances (supply chains) over the entire value-added process

Treasury
Short- and medium-term liquidity management

Underlying
Adjusted to eliminate extraordinary items (see definition extraordinary item)

Working capital
Inventories, including trade receivables, minus trade payables

Other Terms

CSR (Corporate responsibility)
CSR refers to the social responsibility of companies. Their operations can affect economic, social and environmental conditions all over the world

CSR Directive Implementation Act (German abbreviation CSR-RUG)
A German law that became effective in April 2017 to change the German Commercial Code with the aim of strengthening non-financial reporting by certain major capital market companies in their (group) management report in order to comply with the European Corporate Social Responsibility Directive

Designated sponsor
Banks, brokerage firms, security trading organizations or other financial service providers who furnish binding quotes in electronic trading for the purchase or sale of stocks to increase their liquidity

EcoVadis
A provider of business sustainability ratings, EcoVadis analyzes companies with regard to the fulfillment of their corporate social responsibility (CSR) and makes these results available to other companies. The EcoVadis Rating covers a broad range of non-financial management systems including environmental, labor and human rights, ethics and sustainable procurement impacts.

EMEA
The region comprising Europe, the Middle East and Africa; one of the three reporting regions in the geographical allocation of the Sartorius Group besides the Americas and Asia | Pacific

ERP
Stands for "Enterprise Resource Planning"; IT-based resource planning system

ESG
Abbreviation for “Environment, Social and Governance”; refers to the three major factors of sustainable corporate management

GHG
The Greenhouse Gas Protocol, used by many companies in different sectors as well as non-governmental organizations (NGOs) and governments, is a globally recognized standard to quantify and manage greenhouse gas emissions. The reporting standards and recommendations for implementing projects to reduce emissions are jointly developed by companies, NGOs and governments under the guidance of the World Resources Institute and the World Business Council for Sustainable Development

GRI (Global Reporting Initiative)
The GRI has defined guidelines for sustainability reporting. Companies as well as governments and non-governmental organizations worldwide report on their economic, environmental and social strategy based on these data and indicators

ISIN (International Securities Identification Number)
This is a code consisting of a 12 character combination of letters and numbers and uniquely identifies a security traded on the stock exchange

ISO
International Organization for Standardization

IFRS (International Financial Reporting Standards)

These are the accounting standards issued by the International Accounting Standards Board (IASB)

Materiality analysis

A materiality analysis is used to identify and assess sustainability topics. This takes into account the expectations and demands of external stakeholders, as well as the expertise of members of management and the assessments of employees. An analysis of various data sources expands on and verifies these findings

OHSAS (Occupational Health and Safety Assessment Series 18001)

The OHSAS includes the standard OHSAS 18001, which contains a framework for an occupational safety management system. This system can be integrated into an existing quality and environmental protection management system and certified accordingly.

Financial Schedule

Annual Shareholders' Meeting	March 25, 2022
Payment of dividends[1]	March 30, 2022
Publication of first-quarter figures for 2022	April 20, 2022
Publication of first-half figures for 2022	July 21, 2022
Publication of nine-month figures for 2022	October 19, 2022
Publication of preliminary figures for fiscal 2022	January 2023
Annual press conference	February 2023
Annual Shareholders' Meeting	March 2023
Publication of first-quarter figures for 2023	April 2023

1 Subject to approval by the Annual Shareholders' Meeting

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About This Publication

Published by
Sartorius AG
Corporate Communications
37070 Goettingen, Germany

Editorial Deadline
February 16, 2022

Published on
February 17, 2022

Financial Reporting System firesys
firesys GmbH, Frankfurt | Main, Germany

Photography
Peter Ginter, Lohmar, Germany
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This is a translation of the original German-language annual report.

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